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RESEARCH MONOGRAPH #9

Disappearing the Dead:
Iraq, Afghanistan, and the Idea of a "New Warfare"

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Among those endeavors that a state or a people may undertake, none is more terrible than war. None has repercussions more far-reaching or profound. Thus, a grave responsibility to one's own nation and to the global community attends any decision to go to war. And part of this responsibility is to estimate and gauge the effects of war, including the collateral damage and civilian casualties that it incurs.

As the experience of both the Afghan and Iraq conflicts suggest, estimating the casualties of a war can be as controversial as the war itself -- although this should not be the case. The number of casualties incurred in a war does not by itself decide the strategic meaning or wisdom of that war. It is only one variable among others in an equation that includes, for instance, an assessment of the ends that a war is meant to secure and the threat that it is meant to address. An estimate of collateral damage is critical in one sense, however: without it, a true cost-benefit analysis of a war is impossible.

In some circumstances, attention to collateral damage is more urgent than in others. Its importance may vary inversely with the perceived necessity of a war, for instance. When war is literally forced on a nation -- as it was on the Alliance powers in the Second World War -- the prospect of suffering casualties and adding to collateral damage may not be pivotal in the decision to take up arms. A threat to national survival trumps all other considerations. But when a prospective threat does not immediately imperil national survival, or when a contest turns on the need to broadly win hearts and minds (as does the war on terrorism), then the issue of collateral damage (as well as other war costs) may loom larger in debates about how to proceed.

1. War and Perception: the battle to enable American power

1.1. The evolving American calculus of war

During much of the Cold War, two concerns constrained the exercise of American military power: concern about inadvertent escalation (possibly to the level of global nuclear war) and concern about becoming mired in lower-intensity but protracted stalemates, such as the Vietnam conflict. The collapse of the Warsaw Pact and Soviet Union served to mitigate both of these concerns. Also, the experience of the first Gulf War substantially boosted American confidence regarding the practicability of regional intervention. In this context, both the Bush and Clinton

administrations adopted postures on the use of force that -- each in its own way -- eschewed the commonplace "last resort" principle in favor of more flexible formulations.[1] However, the same geostrategic circumstance that led US national leadership to contemplate a freer exercise of military power also, paradoxically, raised its political price. Outside the context of a global "life and death" struggle with the Soviet bloc, it proved difficult to build and maintain a reliable consensus in support of distant interventions. The 11 September 2001 attacks changed that, dramatically altering the political calculus surrounding the question of intervention.[2] Nonetheless, concerns about the appropriate mode of action persisted. And these focused substantially on the issues of collateral damage, civilian casualties, and world opinion.[3]

1.2. The media, casualty intolerance, and asymmetric warfare

Also key in influencing recent public debates about military operations abroad has been the exponential growth of the electronic news media.[4] During the Vietnam conflict -- America's first "television age" war -- the electronic media proved its capacity to broadly communicate the effects of war with a visceral immediacy not possible in earlier periods. Since then, the number of television households in the world has grown more than six-fold, to almost 1.2 billion (against a total population growth during the period of approximately 65 percent). During the 1990s alone, satellite and cable households grew from 85 million to well over 300 million, substantially increasing the demand for programming. One response has been the emergence of a dozen multi-regional all-news channels -- none of which existed 20 years ago. Complementing this growth in both the production and consumption of broadcast media has been the Internet, which now reaches almost 500 million people worldwide. Among other things, the Internet has made it possible for several million Americans to regularly access the foreign press as an alternative source of reporting on world events.[5]

Increased international and domestic attention to the collateral effects of military operations has been a persistent concern of the US defense community since the Vietnam war, when just three photographs depicting the horrors of that conflict did more to undermine the US effort than any three divisions of North Vietnamese regulars ever could.[6] Even more so since the end of the Cold War, sensitivity to the blood price of war (whether regarding military or civilian casualties, own or other) has been broadly recognized as one of the principal constraints on a freer exercise of American military power.[7] The increased capacity of the global media to inflame "casualty sensitivity" -- either in support of or opposition to foreign intervention -- has also been a subject of broad concern in the defense community.[8] Both the initiation and the termination of US operations in Somalia are attributed by some (including Colin Powell) to this "CNN Effect" as is the rapid conclusion of the 1990-1991 Gulf War (following dissemination of images depicting the so-called "Highway of Death" incident).[9]

Since the early 1990s, the US strategic literature has been filled with ruminations on the evolving capacity of adversaries to exploit both the CNN effect and casualty sensitivity in seeking an asymmetric advantage over the United States.[10] More recently, this has inspired some in the defense establishment to reconceptualize the public media as a "battlespace" and public affairs as a "weapon."[11] For instance, Major Gary Pounder of the College of Aerospace Doctrine, Research and Education writes in an *Aerospace Power Journal* article that:

> IO (Information Operations) practitioners must recognize that much of the information war will be waged in the public media, necessitating...PA (public affairs) participation.[12]

While recognizing that PA specialists in the armed services might have concerns about losing credibility with the public and the press, Pounder argues that they must play a central role in information operations because "the public information battle space is simply too important to ignore."

1.3. The public information battlespace after 9/11

Certainly, the Pentagon has been more aggressive since 11 September 2001 in attempting to manage the media, control the flow of information, and shape the coverage of American operations.[13] Part of the IO effort during the Afghan conflict was the establishment of public information "war rooms" in Islamabad, Washington, and London, so that the Anglo-American coalition could coordinate message development and dissemination.[14] The US component of this initiative was the White House Coalition Information Center. Functionally, the effort replicated one during the Kosovo war that had comprised coordinated NATO briefings in Brussels, London, and Washington. This initiative had had the aim of dominating the news cycle across time zones. For the Iraq operation, the coalition added a center in Qatar. In early 2003 the White House center was renamed the "Office of Global Communications."

In the State Department, a complementary effort with a somewhat broader mandate was undertaken by Charlotte Beers, a public relations specialist, who in October 2001 became Undersecretary of State for Public Diplomacy and Public Affairs. In March 2003, Margaret Tutwiler replaced Beers in this position.[15] Central to the Bush administration's news and perception management efforts has been the Rendon Group, a public relations and communications firm.[16]

For the Iraq operation, the Pentagon's regular public affairs activities were complemented by the efforts of the Office of Special Plans, which came under the purview of the Undersecretary of Defense for Policy, Douglas Feith.[17] Although the office has had as few as ten full-time personnel on staff, it also has had as many as 100 outside consultants at its behest. Besides

serving as an *ad hoc* intelligence and planning office close to Defense Secretary Rumsfeld, this office was also a source of selective intelligence leaks, especially regarding Iraqi WMD capabilities.

The most well-known and audacious public information warfare initiative was the DoD's Office of Strategic Influence (OSI), established in fall 2001 and officially closed in February 2002 when revelation of its existence stirred public controversy.[18] Also answerable to Undersecretary Feith, the OSI was meant to oversee, coordinate, and augment standing DoD efforts to influence foreign public opinion. Its mission would have encompassed disinformation and propaganda efforts including the placement of false or misleading stories in the foreign press and the use of third-party outlets for covert dissemination of stories. Although the office was disbanded and disavowed, "perception management" activities have continued elsewhere, including within the Office of Special Plans. In late 2002, Secretary Rumsfeld reflected on the fate of the Strategic Influence office:

> ...[T]he Office of Strategic Influence. You may recall that. And 'oh my goodness gracious isn't that terrible, Henny Penny the sky is going to fall.' I went down that next day and said fine, if you want to savage this thing fine I'll give you the corpse. There's the name. You can have the name, but I'm gonna keep doing every single thing that needs to be done and I have.[19]

Eighteen months after the OSI imbroglio, DoD contracted a private firm, Science Applications International Corporation, to create a blueprint for a "DoD capability to design and conduct effective strategic influence and operational and tactical perception-management campaigns."[20] However, DoD officials were quick to point out that this did not imply the resurrection of the OSI.

1.4. Perception management in support of Enduring Freedom and Iraqi Freedom

With or without the OSI, the US Defense Department, State Department, and White House conducted large-scale "perception management" or "strategic influence" campaigns in support of Operations Enduring Freedom and Iraqi Freedom as well as in support of the broader war on terrorism. The conduct of such campaigns is not unusual for nation-states in war or peace, nor is it necessarily antithetical to democratic practice. The recent American efforts may be singular in the post-World War II period for their prominence, magnitude, and intensity. But the real focus of concern regarding the post-911 campaigns has been their methods, choice of targets, and effectiveness.

Especially controversial has been the possibility that false or misleading information might be spread to Western and allied electorates. And, in fact, both US and British authorities have disseminated some intelligence data known to be weak or unreliable when they made the case for war.[21] Looking more broadly, an analysis by USAF Colonel Sam Gardiner (retired) has identified more than 50 suspect stories on the Iraqi conflict -- all of which the author argues show signs of being products of a media manipulation campaign.[22] The subjects of these stories include Iraqi weapons of mass destruction, Iraqi contact with Al Qaeda, Iraqi violations of the laws of war, the surrender of Iraqi divisions, the Private Lynch episode, Iraqi execution of POWs, infrastructure attacks and civilian casualties during the war, the post-conflict situation in Iraq, and the purported support of the Russian, French, German, and Syrian governments for the Iraqi regime.

The impact or effectiveness of the post-911 perception management campaigns is difficult to gauge. Majorities or pluralities of the US electorate do entertain several false or questionable propositions favorable to war with Iraq and congruent with Bush administration positions.[23] With regard to most of the world, however -- and especially Arab and Muslim countries -- the impact of perception management efforts seems to have been negligible or negative.[24] Great Britain and Iraq constitute partial exceptions.[25] Generally speaking, international attitudes toward the United States and its conduct of foreign policy are now at a 30-year nadir, after having improved immediately following the 11 September attacks.[26]

Perception management campaigns may have been effective in shaping US public reaction to collateral damage, but unnecessary and unwise. Despite concerns about American vulnerabilities to asymmetric information warfare, careful assessments of public opinion show that the US citizenry is not especially "casualty intolerant" -- as long as it assents to the purpose and necessity of a war.[27] It is true, however, that the public is wary of protracted conflicts and sensitive to incidences of collateral damage that seem to contravene American values or the goals of an intervention. This seems a healthy degree of caution that can be addressed through regular political discourse -- in which the estimation of casualties would play a necessary part. The public's caution about war seems only to underscore the requirement that national authorities, when contemplating war, must make a clear, thorough, and resilient case that the use of force is necessary, proportionate, and well-tailored to desired ends. Without doubt, this requirement constrains the action of national authorities, but in a way consonant with the functioning of a democratic society. Indeed, it may provide the surest guarantee against misadventures abroad.

2. Shaping the public discourse on civilian casualties: case studies from the Iraq war

In the remainder of this report, we analyze key aspects of the US public discourse on collateral damage in the Afghan and Iraqi wars, with special attention to those concepts advanced by the US defense establishment to define and explicate the issue. *Section 2.1* examines the Coalition effort to "spin" the two marketplace bombings that occurred early in the Iraq war. *Section 2.2* examines the official framing of the air attack on Baghdad more generally. Subsequent sections analyze the "new warfare" and related concepts as constituting a comprehensive frame for the Coalition efforts in Afghanistan and Iraq. (See *Appendix 1. A note on media spin and news frames.*)

Among the active efforts of the US coalition to frame coverage of casualties were suggestions by Defense and State Department officials that (1) the Hussein regime had procured military uniforms resembling those of US forces so that Iraqi personnel might enact atrocities that would be blamed on Americans and that (2) the regime was stockpiling cadavers before the war to be used to create an inflated impression of wartime civilian casualties.[28] Similarly, Vice Admiral Lowell Jacoby, director of the Defense Intelligence Agency, testified to Congress before the war that Iraq would likely destroy its own food, energy, and transportation infrastructure in order to create a humanitarian disaster that it could blame on US forces.[29] A more effective and consequential example of news management was the coalition effort to "spin" the coverage of the two marketplace bombings in Baghdad that together claimed more than 70 lives early in the war.[30]

2.1. Spinning the Iraqi market place bombings

The first of the two market bombings occurred on Wednesday 26 March 2003 at the Al Shaab marketplace. The second occurred Friday, 28 March 2003, at the Al-Nasr (Nassar) market in the al-Shuala (Shoala) district. American and British authorities quickly suggested that these tragedies might have been the result of Iraqi air defense missiles falling back to earth.[31] This called to mind similar claims regarding collateral damage in Tripoli during the 1986 US raid (which were generally rejected as implausible) as well as claims during the January 1993 air raids on Iraq regarding deadly collateral damage to the Al Rashid Hotel (which were later withdrawn when cruise missile debris was found at the site).[32] Although the notion that Iraqi air defense missiles were the source of the marketplace explosions in the 2003 war was not entirely implausible, it was a substantially less likely scenario than the competing one. And this should have been clear even before debris from the site was examined, for two reasons: (1) the relative numbers of suitable weapons used by the two sides in the Baghdad area and (2) the attack vectors and performance characteristics of these weapons.

Any number of coalition air-to-surface weapons packed sufficient punch to do the damage observed at the marketplaces. On the Iraqi side, the warheads on SA-2, SA-3, and SA-6 missiles might have been large enough.[33] US Central Command estimated that Iraq possessed fewer than 210 launchers for these types of missiles.[34] Other sources estimated that the Iraqis possessed as many as 1,200 of the missiles themselves. More numerous were shorter-range and shoulder-fired Iraqi surface-to-air missiles; these numbered between 2,000 and 6,000.[35] During the war there were 1,660 reported launches of Iraqi surface-to-air missiles.[36] Most of these would have been the more numerous mobile and portable types that could rely on optical or infrared targeting (which included the SA-6s, but not the SA-2s and SA-3s). Probably no more than a few hundred of the total launches involved missiles with warheads heavier than 20 kilograms. The majority of the heavier types were probably used in and around Baghdad.

By comparison, the coalition employed almost 20,000 guided air-to-surface weapons in the war.[37] Probably less than 2,000 of these were used in the Baghdad area, however (judging from the numbers and types of "aim points" attacked by the coalition). Approximately 50 percent of these generally fit the damage profiles of the marketplace bombings, being neither too large nor too small. This suggests that coalition air-to-surface weapons outnumbered Iraqi surface-to-air missiles (SAMs) as candidates for the marketplace explosions by a ratio as large as six-to-one. If we consider the rapid destruction of the relatively-immobile Iraqi SA-2 and SA-3 launchers at the start of the war, the relevant ratio were probably even higher when the marketplace bombings took place. Indeed, after the initial Baghdad blitz, many coalition pilots regarded high- and medium-altitude Iraqi SAMs as a "no show". As reported in an *Air Force Times* article on Iraqi air defense efforts:

> Anti-aircraft artillery has filled the sky, but relatively few SAMs have been launched... [M]any pilots...characterized missions over Iraq as "surprisingly quiet," and having "little resistance."[38]

The attack vectors and performance characteristics of the weapons also suggested an air-to-surface culprit for the bombings. Minor errors and inaccuracies -- even standard ones -- in the delivery of air-to-surface weapons could have produced the marketplace tragedies. Shooting downward into thickly populated areas is simply a very dangerous and demanding endeavor. By contrast, for an air defense system to have been at fault would have required a string of errors and failures -- some catastrophic -- in the employment, performance, and functioning of both the system and its failsafe mechanisms. Typically, air defense missiles would be fired outward from the point or area to be defended; when they miss their targets, their warheads should explode before striking the ground. This is not to say that air defense missiles are not threatening to people and assets on the ground, as the experience of the Patriot missile in the first Gulf War attests.[39] But this mostly involves debris from the missiles and their targets (when struck). Given the attack vectors of longer-range air defense launches and the momentum of their

missiles in flight, we should expect considerable debris in areas surrounding Baghdad -- not in the city center.

In light of the two background factors mentioned above, the "prior probability" of an air-to-surface weapon being the culprit in each of the marketplace bombings could easily have been ten or more times greater than that of an air defense missile being the culprit. (And, as noted below, subsequent data from the bombings only added to the likelihood of an air-to-surface culprit.) All of this would have been known to coalition military leaders. Nonetheless, they sought to rivet media attention on the off-chance that Iraqi air defense weapons were to blame.

- Regarding the first marketplace incident, US Brigadier General Vince Brooks said it was "entirely possible that this was an Iraqi missile that went up and came down," although the previous day US military commanders had confirmed that coalition aircraft were targeting mobile Iraqi missile launchers in Baghdad that were within 100 yards of residences.[40]

- Two days later British intelligence sources asserted that many Iraqi air defense missiles were malfunctioning and falling back into Baghdad before exploding, although they did not substantiate the claim. Moreover, they said that Iraqi civil defense workers had been "instructed to remove Iraqi missile fragments which have fallen on residential areas before journalists arrive on the scene" (which in some cases was minutes and others hours after the fact) -- thus, supposedly, explaining the lack of corroborating evidence. (Due to their fuselage, surface-to-air weapons tend to be larger than air-to-surface ones per weight of warhead; hence, they leave more obvious debris.)[41]

- Finally, British intelligence suggested that Iraq's air chief may had been sacked because of such incidents, although they allowed that the Iraqis might deny this: "We fully expect the commander who has been replaced to be paraded in front of the television cameras by the Iraqis to try to show this is untrue."[42] (If Hussein had replaced the Iraqi general a more likely reason would have been the poor performance of Iraqi air defenses and not any suffering caused the Iraqi people.)

Notably, these propositions were advanced as possibilities only. And no one can deny that they might be true. As the British spokesperson summarized:

> We are not saying definitively that these explosions were caused by Iraqi missiles. But people should approach this with due scepticism.[43]

While this approach could not falsify Iraqi claims regarding the bombings, it might -- and did -- blunt them, at least in the United States. Picking up on these threads, Defense Secretary

Rumsfeld said two days later that, although he did not have certain knowledge about the cause of the damage, "I do notice that [the Iraqis] apparently have fired their air defense general because a number of things seem to be coming back down and misfiring and killing innocent Iraqis."[44] Again, nothing was offered to substantiate this intelligence.

The matter might have been closed when an enterprising British reporter from the *Independent* traced serial numbers on debris found at the site of the second bombing to the Naval Air System Command and Raytheon, manufacturer of AGM-88 HARM anti-radar missiles.[45]

- The *Independent* article also reported that the Navy had confirmed that an EA-6B Prowler "was in action over the Iraqi capital on Friday and fired at least one Harm missile." The damage at the second marketplace had been consistent with the effects of a HARM fragmentation warhead. And, both the aircraft and the putative weapon accorded with the hunt for air defense launchers in Baghdad that US officials had announced earlier.

- Finally, the HARM -- which homes on radar or other electronic signals -- has a track record of going far off course when it loses the "lock" on its intended target or is attracted by some other signal source. This problem was evident in a failed 1998 attempt to destroy Iraqi air defense launchers in southern Iraq and in an incident during the 1999 Kovoso war when a HARM missed its target by more than 30 miles, eventually striking a house in Bulgaria.[46]

Nonetheless, UK Defense Secretary Geoff Hoon and an American official countered that the bomb fragments could have been planted by Iraqi agents.[47] This hypothesis assumes extraordinary adaptiveness, luck, and intelligence on the part of Iraqis -- who would have had to quickly produce and plant a coded bomb fragment that neatly accorded not only with the bomb damage, but also the coalition's air defense suppression mission then underway and the use of HARM munitions by naval aircraft over Baghdad on the night of the attack. Of course, there is a small probability that Hoon's speculation is correct -- not because he or other coalition officials introduced any positive evidence to support it, but because there is no fact in life that is certain. There is always some room for doubt at the margin. The coalition spin on the marketplace bombings depended on mobilizing this marginal doubt. Although coalition officials sat on a trove of information that would have clarified the bombing incidents, their chosen strategy was to cast a cloud of uncertainty over them.[48]

Spin is a form of misdirection based on emphasizing a minor aspect of an event or promoting a tendentious or idiosyncratic interpretation of it -- one that favors one's own interest. However, for spin to work, there must be a media willing to "take the pitch" (so to speak), rather than letting it fall flat. With regard to the marketplace bombings: the news media's willingness to adopt the uncertainty frame and give the coalition "the benefit of the doubt" divided along

predictable lines. While the marketplace bombings reverberated loudly in the Muslim and Arab worlds, the story had no "legs" in the United States and only short ones in Britain.

2.2. Framing the air attack on Baghdad

Waging lawfare

Since the Second World War the practice of strategic bombing and, especially, the aerial bombardment of cities, has been dogged by a growing body of international law that seeks to constrain it.[49] In this light, a subset of the recent literature on asymmetric attack has been concerned specifically with the possibility that US adversaries might attempt to misuse international law to unfairly impede US combat operations while advancing their own goals -- a practice that some call "lawfare."

In a 2001 monograph, Charles J. Dunlap Jr. (now a Brigadier General and Staff Judge Advocate for the Air Combat Command headquarters), wrote that "Lawfare describes a method of warfare where law is used as a means of realizing a military objective."[50] As Dunlap sees it, lawfare involves a manipulation of both public perceptions and international law that aims to create or reinforce the impression that one's opponent is violating either the letter or spirit of the law. The goal is to undermine international and domestic support for the opponent's actions or cause.

"Lawfare" might be viewed simply as a subspecies of information warfare that centers on the legitimacy of wars and of specific actions within wars. In that case, international legal institutions and authorities, such as the World Court and the International Committee of the Red Cross, might play a positive role in assessing or adjudicating claims. However, the real target of those who have theorized "lawfare" is what they perceive to be an over-extension of international law and legal mechanisms -- what Richard Betts calls "hyper-legalism".[51] They see this over-extension as being especially unfavorable to those nations and political cultures that take the rule of law most seriously. The discourse about lawfare may itself be part of a putative remedy, insofar as it creates momentum for the rollback of so-called "hyper-legalism". Other possible countermeasures might include "defensive lawfare" or even "preemptive lawfare" -- stratagems that would aim to steel a domestic constituency against lawfare or to undermine the ability of an adversary to claim the legal high ground. Whether lawfare is conducted offensively or defensively, and whether its mode is reactive or preemptive, it tends to treat public debate as an object to be shaped, rather than simply informed.

Strategic bombing and the illegality of air defense

The Anglo-American framing of the Baghdad air campaign is best understood as an instance of lawfare. The coalition complemented its aerial bombardment of Baghdad with consistent complaints about the legality of Iraq's placement of air defense systems in and around residential and industrial areas of the city.[52] Although there were numerous instances in the war of Iraqi combatants violating civilian structures, the coalition's case regarding air defense was overstated. It implied strictures that would have precluded any adequate air defense of the city -- an outcome not consonant with the intent of international law. In fact, it is not uniformly illegal to operate in or near civilian areas if such operations are militarily necessary. For better or worse, international law gives wide berth to military necessity. The law does require, however, that armed forces balance military necessity against the risk to civilians when conducting operations. And, of course, international law strictly forbids placing military assets near a civilian structure simply in order to take advantage of its protected legal status.

Air defense of a city under bombardment complicates the equation, however. This is evident in the case of Iraq's placement of an air defense gun on the roof of the Ministry of Information, which the coalition criticized.[53] But it was not the gun that made the ministry building a likely target. Anyone with even a cursory knowledge of US air war methods and practice would have expected an attack on the structure, whether or not it was protected. In this context, the placement constituted nothing more than a sensible terminal point defense against cruise missile attack.

Also questionable were coalition complaints about Iraq placing air defense systems within 300 feet of residences.[54] This objection implies a standard that would have made effective air defense of the city practically impossible. To keep an air defense unit comprising two or three weapon platforms 300 feet from residences and civilian industrial sites would require placing the unit at the center of a 18-acre zone free of such residences or sites.[55] The deployment of hundreds of such units under these strictures would require finding hundreds of such zones. But much of Baghdad is thickly populated; Its population density is 140 percent that of London, 160 percent that of Washington DC, and about 60 percent that of New York City. Presumably first among those structures to be avoided would be schools, hospitals, and mosques -- and Baghdad has 2,400 schools, 171 medical facilities, and hundreds of larger mosques scattered throughout the city.

Meeting these strictures would thoroughly disrupt the air defense mission, which imposes strict requirements of its own. Among these requirements are the placement of units to protect key assets and areas and to cover the main avenues of approach and egress for attacking aircraft. Effective air defense also require siting units in places that ensure wide fields of view and fire and that enable overlapping and mutually supporting fires among units.[56]

The option of placing air defenses only outside the city, perhaps in a thin picket line surrounding it, also contravenes basic principles of air defense, which prescribe depth and density. Such a line would be porous and its individual components, standing alone, would be easily interdicted. Defending a city as large as Baghdad, which covers 280 square miles, against omni-directional air attack requires placing air defense assets both in and around the city. And defending high value assets usually implies siting air defense platforms somewhere nearby. This fact is reflected, for instance, in the post-9/11 deployment of Avenger missile units in Washington DC, which guard the Pentagon and Fort McNair (among other sites).[57]

The coalition's objections to Iraqi air defense tended to obscure or distract from the determinant factors that shaped the threat to civilians, which were:

- A war that aims to topple a regime is likely to entail some sort of urban combat or attack -- at least involving the capital city;

- Wars fought for maximum objectives -- such as national sovereignty or regime survival -- tend to be fought intensely, even desperately. In such cases, considerations of military necessity will weigh heavily against concerns about collateral damage.

- Regardless of political objectives, any method of war that emphasizes aerial bombardment including attacks on urban, political, and dual-use targets is going to turn cities into air combat zones, involving intense duels between ground attack and air defense systems.

Within these parameters, combatants can pay more or less attention to the plight of civilians -- and its important to require, as humanitarian law does, that they do the best they can to spare the innocent. But even under the best of circumstances, the exchange of thousands of warheads and bombs, hurled downward into and upward from populated areas, is going to claim a serious toll in innocent life. This arguably puts a heavy burden of responsibility on those who initiate wars of the type described above. The deciding factor is whether and to what extent the wars in question are defensive in nature and necessary. Similarly, because attack on political targets and dual-use or "dual-nature" targets (ie. industrial-military targets) inevitably imposes a significant toll on civilians, the necessity for these types of attack must be critically scrutinized. With regard to the 2003 Iraq war: the fact that the war was won quickly despite the failure of early decapitation strikes and the failure of "shock and awe" tactics suggest that some forms of strategic attack can be curtailed.

3. Framework Propositions on War Casualties and Collateral Damage

The coalition efforts to spin the Iraqi marketplace bombings (in terms of "uncertainty") and to frame the bombardment of Baghdad (in terms of the illegality of Iraqi air defense operations) represent *ad hoc* attempts at managing specific controversies over the war's blood cost. DoD also has advanced several ideas of broader scope to frame its recent conduct of warfare overall. The most important of these -- which include the idea of a "new warfare" -- had currency prior to the Bush administration (although the phrase "new warfare" has a recent vintage). These framework propositions are meant to influence how the US public evaluates the option of going to war and how the entire world assesses its costs once war commences. In subsequent sections we will examine four of these frameworks propositions pertaining to the issue of civilian casualties and collateral damage. The four propositions examined below are:

(1) US precision attack capabilities have revolutionized warfare, making it possible to wage war with greatly reduced casualties and collateral damage;

(2) US armed forces go to incomparable lengths to limit collateral damage and civilian casualties: they are doing the best they can to spare the innocent and more than anyone else has done before;

(3) The number of war casualties cannot be known with certainty, at any rate, and

(4) The number of casualties is not especially meaningful in assessing the success or progress of a war effort.

Each of these propositions reflect some truth, but have only a limited utility in clarifying the problem and likelihood of collateral damage. To the extent that they are accepted uncritically or wholesale, they serve to distort the national discussion on war and its repercussions.

3.1. Claims about "precision attack" and the "new warfare"

Certainly, the notion that US precision attack capabilities make it possible to wage war with a minimum of civilian casualties has figured centrally in public consideration of America's recent wars. Indeed, the vibrant discourse on the so-called "new warfare" is really about two things: America's capacity to avoid quagmires like the Vietnam war and its ability to strictly limit casualties -- both own and other, military and civilian.

President George W. Bush outlined the implications of the "new warfare" hypothesis in a speech before workers at a Boeing aircraft plant in April, 2003:

> We've applied the new powers of technology... to strike an enemy force with speed and incredible precision. By a combination of creative strategies and advanced technologies, we are redefining war on our terms. In this new era of warfare, we can target a regime, not a nation.[58]

Although President Bush in the same speech invoked "last resort" language with regard to the use of force, the clear implication of his claiming that the United States had "redefined war" and contained its effects was that war had become a more usable instrument of US policy. This accords with the Bush administration's policy of preemptive war (actually, "preclusive" or "precautionary" war) and the more utilitarian approach to using force that was first championed by the senior President Bush and subsequently practiced by the Clinton administration.

Prior to the Iraq war a US State Department press release (reporting on a Defense Department briefing) focused more specifically on the implications of the putative "new warfare" for civilian casualties:

> Technology has improved exponentially since the 1991 Persian Gulf War to liberate Kuwait from Iraq's grasp. A senior CENTCOM official says "the ability to be that [much] more precise, intuitively tells me that there should be fewer casualties."... The precision capability that now exists "allows us to keep civilian casualties to a lower number than we've ever seen in the past," he added.[59]

On the eve of the war Admiral Timothy Keating, who led the US naval effort, promised that "the campaign will be unlike any we have seen in the history of warfare, with breathtaking precision, almost eye-watering speed, persistence, agility, and lethality." President Bush reiterated the admiral's claims when he spoke to the nation on the night the war began.[60] Ten days later, General Franks summarized the US effort as "an incredibly precise military operation":

> I think you have seen time and time and time again military targets fall while the civilian infrastructure remains in place. And it's the same with civilian lives.[61]

The idea that the United States had developed a capacity for a new type of rapid, decisive, low cost warfare first gained broad currency during and after the conventional phase of the 2001 Afghan war. In many media treatments, the Afghan war fulfilled the promise of a new warfare that had been only partially glimpsed in the Kosovo conflict and first Gulf war:[62]

> The Afghan war was a "bulls-eye war" (*Washington Post,* 12/02/01), a "finely-tuned war" (*Christian Science Monitor,* 11/21/01), and a "new low-risk war" (NYT, 12/29/01), characterized by "pinpoint air power" (*NYT,* 12/24/01), "pinpoint bombing" (*Washington Post,* 12/02/01), and "information-heavy combat weapons" (*Boston Globe,* 11/26/01) that

> were "precise at hitting targets" (*Knight Ridder,* 10/09/01) and "built to swiftly find and destroy" (*Los Angeles Times,* 10/03/01) an elusive foe. The US media verdict was virtually unanimous: "Technology brings new style of warfare" (*Baltimore Sun,* 12/17/01), "War in Afghanistan demonstrates air power's new ability" (*Associated Press,* 12/19/01), "Pinpoint Air Power Comes of Age in New War" (*NYT,* 12/24/01), and "High-tech US Arsenal Proves its Worth" (*Boston Globe,* 12/09/01).

Similar notions held sway in the media in the period leading up to the Iraq war, during the war, and after it:[63]

> Headlines extolled Operation Iraqi Freedom as exemplifying a "new way of war" (*Copley News Service,* 03/20/03), a "new art of war" (*Daily Standard,* 04/03/03), or a "new style of war" (*Baltimore Sun,* 04/13/03) in which "precision bombing" (*NYT,* 02/02/03), "precision weapons" (*Baltimore Sun,* 02/24/03), "pinpoint targeting" (*Financial Times,* 06/16/03), and "pinpoint attack" (*London Times,* 09/23/02) would "hit hard, hit fast, and protect civilians" (*Baltimore Sun,* 02/24/03). This makes it possible to wage war while "sparing civilians, buildings, and even the enemy" (op-ed, *NYT,* 03/30/03) or "sparing the country and its people" (*Minneapolis Star Tribune,* 04/27/03). Once again, "advanced weaponry" and "a more mobile force have shown their worth" (*Baltimore Sun,* 04/13/03). Headlines echoed General Tommy Franks description of the war as "unlike any in history" (*NYT,* 03/23/03; *Associated Press,* 03/22/03) or "like no other" (*NYT,* 04/10/03). With this "pivotal war" (*Defense & Foreign Affairs' Strategic Policy,* 05/03), "war enters a new age"(*Minneapolis Star Tribune,* 04/27/03) in which "advances shorten war and save lives" (*Omaha World Herald,* 05/18/03).

3.2. Claims about damage limitation efforts

US damage limitation efforts pertain not to technological capabilities, *per se,* but instead to the choice of targets and the care exercised in attacking them. US efforts along these lines include vetting targets with DoD lawyers and relying on computer simulations -- the so-called "bug splat" program -- to predict the likely "spill over" or collateral effects of an attack. With regard to the Iraq war a senior US defense official serving under General Franks told a briefing audience on 5 March:

> I don't want to say there will be no damage. I don't want to say there will be no casualties. But there is a very good way to try to keep the number of casualties and the damage to the minimum.[64]

These ways include tailoring the size of a weapon to the target, adjusting the angle of attack or detonation point to reduce spill-over effects, timing an attack to minimize civilian exposure, and providing warning local populations in advance to avoid certain broad types of structures or assets. These procedures form the basis for JCS Chairman General Myers reassuring assertion, made in February 2003, that:

> [I]n our targeting, we'll go to extraordinary lengths to protect noncombatants and civilians and--and facilities that should not be struck.. And we always do that."[65]

These targeting procedures were also the basis for Secretary Rumsfeld's assertion during the Afghan war that "no nation in human history has done more to avoid civilian casualties than the United States has in this conflict."[66] During the period between the two conflicts, the US defense establishment made a concerted effort to better familiarize reporters with its efforts to limit collateral damage.

The issue was explored at an meeting of human rights activists, active and retired military officers, and journalists who had been reporting on civilian casualties. The meeting, the "Understanding Collateral Damage Workshop," was sponsored by the Project on the Means of Intervention, which is located at the Carr Center for Human Rights Policy at Harvard University. Although there was little consensus among the participants on most issues, there was agreement that publicizing US damage limitation procedures could affect the public discourse on war:

> Part of preparing the battlefield, it was argued, includes getting out the story of the U.S. armed forces' efforts to prevent collateral damage.... While some questioned whether editors would ever seek a story about the care exercised by the U.S. military, many believed that the story would make a difference in shaping public, particularly foreign, attitudes towards the West's conduct of military operations.[67]

As it turns out, the doubters at the workshop either misread editorial appetites or underestimated the wherewithal of the Pentagon and State Department public affairs offices, which succeeded in pitching the story very broadly before and during the Iraq conflict, especially during the critical month of March 2003.[68] Indeed, a *limited* Lexis-Nexis search of the US and British news media for the month of March finds nearly 100 stories and programs in which the *specific phrase* "extraordinary lengths" is used to describe coalition efforts to limit collateral damage and civilian casualties. Other permutations of the phrase -- for instance, "extraordinary care" or "extraordinary efforts" generate additional hits. And, of course, there are many other ways to express the same idea.

3.3. Assessing the Claims

US aerial bombardment is substantially more precise today (on average) than it was two decades ago. And, within the context of dropping tens of thousands of bombs, US targeting teams work very hard to balance damage limitation and what they understand to be "military necessity." But neither the precision of US weapons nor the care with which they are delivered can tell us how many people will be killed in wars by these weapons. Nor can this knowledge tell us unambiguously whether these wars will be less or more deadly than those of the past. And they certainly cannot tell us whether there will be more or fewer wars in this decade or the next compared to the 1990s or 1980s. While the new warfare has been touted as "low risk" and "low cost," the capabilities and procedures that are supposed to distinguish it cannot by themselves guarantee either of these outcomes. For this, there are several reasons.

- First, the two standards upon which expectations about the new warfare are based -- weapon precision and care in targeting -- *do not reflect actual casualty and damage outcomes on the battlefield.* Official statements about the accuracy of US bombing and the sophistication of efforts to limit collateral damage are not based on comprehensive empirical surveys of war casualties.

Typically, the basis for making claims about low-risk bombardment is the technical performance parameters of the weapons, such as their CEP or circular error probable. At best, this measures the relationship between aim points and impact points *as determined in controlled tests, not on the battlefield.* Also, there is an obvious difference between hitting one's intended target and not causing unintended casualties or damage in the process. The targeting process is meant to mitigate this problem -- by vetting targets and fine-tuning the attack, as noted above. But the actual effectiveness of this process has been neither tested nor quantified empirically with regard to casualty outcomes.

- Second, weapon performance parameters and procedures for limiting collateral damage are only two variables in a complex equation that determines the extent of collateral death and destruction caused by weapon use.

Even if official statements about weapon precision and care in targeting were based on thorough empirical surveys of casualties -- which they are not -- they still might not convey from one war to the next. Other factors in the war equation are simply more determinant. These include:

- Operational plans and methods, which determine what types of missions will be attempted and how much they will "stress" weapon capabilities and targeting procedures. These determine, *inter alia,* how much a nation depends on aerial bombardment and whether its weapon capabilities will be tested in urban and populated areas.

- Political-strategic factors, which include the goals for which a war is fought. These might be more or less ambitious, ranging from efforts to foil or punish aggression to efforts to topple regimes.

- Issues of national strategy, which determine the role of force in a nation's foreign policy: A nation's use of force may be purely reactive (ie. defensive), preemptive, or even pre-cautionary, and its threshold for using force may be high or low. These factors will determine how often a nation goes to war, why, and under what circumstances.

Depending on how a nation's policy registers with regard to these three factors, it can generate any number of war casualties over a decade regardless of precision attack capabilities or adept targeting procedures. Of course, it is better to have these capabilities and protocols than not, but they cannot by themselves provide any guarantees about the level or extent of collateral damage actually realized on battlefields over any set period of time. Thus, there is no real paradox in the fact that during the age of "precision warfare" (beginning with the first Gulf War), US military operations have claimed the lives of approximately 50,000 people worldwide (combatants and noncombatants), while during the 14 years preceding the first Gulf War (1976-1989), overt US operations claimed the lives of approximately 2,000 people.

4. Precision attack and the New Warfare

4.1. Have America's recent wars been "low casualty" events?

For many observers, the crux of the new warfare is the capacity to win while incurring historically low numbers of casualties. In the case of Operation Iraqi Freedom, however, this characteristic actually attained in only one respect: the highly favorable attrition ratio achieved by coalition forces in their contest with Iraqi fighters during the main combat phase of the war.

US personnel attrition

During the period 19 March – 1 May, between 7,600 and 10,800 Iraqi combatants were killed by coalition forces, while only about 150 coalition troops died due to enemy action.[69] This represents an average attrition exchange ratio of 60:1, which is far better than the best achieved by Israeli armies (4:1) in their contests with Arab armies.

The attrition ratio in the 2003 war was not better than the one achieved in the 1991 Gulf War, however, which was approximately 120:1. Nor was the percentage of coalition troops killed or wounded in Operation Iraqi Freedom lower than that experienced in Desert Storm. The fatality

rate was 1/2000 for OIF and 1/4000 for ODS. This apparent degradation was probably due to the fact that "regime change" was the objective of the 2003 war. This is a far more ambitious goal than that which motivated Operation Desert Storm. Among other things, it required a much longer period of ground combat, which typically is the most costly component of war.

Setting aside the contrasts between the two US-Iraq wars, what they both have in common is a US casualty rate (for the main combat phase) that is well below one-tenth of one percent of deployed forces. This is no small achievement -- and it may be revolutionary in terms of American willingness to go to war. But we should remember, as noted above, that the chief determinant of US public attitudes on foreign military operations is not the number of US casualties, *per se,* but whether the intervention is considered worthwhile and winnable, and whether the apparent costs seem commensurate with the stakes. In this context, the Iraq war stands out as a US initiative that, by the end of January 2004, had incurred the highest cost in American lives in 27 years -- more than the first Gulf war and far more than either the Afghan war or the hunt for Bin Laden. Since 1976, approximately 900 US service people have died overseas due to hostile action; about 38 percent of these deaths occurred in Iraq during the ten month period, 19 March through 20 January 2004.

Adversary casualties

The characterization of the new wars as "low casualty" events is supposed to extend also to adversary casualties -- especially noncombatants. This is relevant to maintaining the moral authority and legitimacy of US operations and to limiting any negative or inadvertent effects. By this measure, however, the outcome of the 2003 war clearly does not set it apart as distinctly revolutionary. Indeed, the war's death toll registered within the range of those suffered in many of the strategically significant wars of the past 40 years. On the other hand, the casualty rates incurred in America's recent wars do not compare with those experienced in some of the protracted or stalemated conflicts of the past 25 years, such as the 10-year anti-Soviet war in Afghanistan, the eight-year Iran-Iraq war, and the Vietnam war. But if avoiding catastrophic quagmires such as these is supposed to count as a revolutionary achievement, then the bar has been set too low; several nations managed to jump it decades ago.

Among the strategically significant wars with casualty rates comparable to the 2003 Iraq war were:[70]

1956 Suez War: 3,000 military; 1,000 civilian;
1962 Sino-Indian War: 1,000 military; 1,000 civilian;
1965 India-Pakistan: 6,000 military; as many as 12,000 civilian;
1967 Arab-Israeli war: 19,600 military; less than 1,000 civilian;

1971 India-Pakistan: 11,000 military;
1973 Arab-Israeli war: 16,401 military; less than 1,000 civilian;
1982 Falklands Island War: 1,200 military;
1982 Israeli Invasion of Lebanon: 17,000 total; and,
1999 India-Pakistan Kargil War: 1,200 military.

In many of these, the number of civilians killed was notably less than in the putatively "revolutionary" 2003 Iraq conflict. Noncombatant fatalities during the month-long 2003 Iraq war actually outnumber those suffered during the three years of intensified conflict between Israelis and Palestinians -- the Al-Aqsa Intifada -- that began in September 2000. And total Iraqi fatalities (combatant plus noncombatant) in 2003 surpassed the number of fatalities incurred during the past 15 years of the Arab-Israeli conflict. Thus, it is fair to conclude that the warfighting techniques and technologies employed in the 2003 war -- however capable -- were not sufficient to keep the death toll below a level likely to have deep and enduring negative consequences.

Turning to the recent Afghan war: between 1,100 and 1,300 civilians and between 3,000 and 4,000 Taliban combatants were killed in the fighting during the period 7 October to 31 December. Hundreds more have been killed since. Although much less bloody than the Iraq war, the Afghan conflict nonetheless registers within the range of several of the significant wars listed above. And, again, its civilian and total death tolls match or surpass those suffered during the past few years of the Israeli-Palestinian conflict. Indeed, the Afghan war death toll has been substantially greater than that suffered in India-Pakistan clashes over the past few years.

4.2. Results may vary: How measures of precision mislead

Why the difference between the promise and the practice of "precision warfare"? In *Section 3.3* we discussed how differences in operational concepts, war objectives, and national security strategies can produce significantly different casualty outcomes despite a common reliance on precision weapons. In the present section our scope is narrower: we look at why today's "precision weapons" cannot meet the expectations that the word "precision" creates -- at least with regard to inadvertent casualties.

Errors, systematic and contingent

The precision of weapon delivery systems is typically expressed in terms of Circular Error Probable (CEP), which is the radius of a circle centered on an aimpoint within which some percentage -- usually 50 percent -- of weapons fired at the aimpoint will fall. As usually stated, the CEP for a GPS-guided weapon takes into account: (1) inherent target location errors, (2) the fluctuating

accuracy of the GPS system, and (3) inherent guidance and software errors. These errors are "inherent" in the sense that they reflect the limits of the systems employed and cannot be removed without improving, supplementing, or changing these systems.[71] JDAMs have a tested CEP of 10.3 meters (against a requirement of 13 meters). (A 13 meter CEP is the threshold for considering a weapon "accurate"; In 1998, the CEP standard for precision weapons was 3 meters).[72]

Beyond inherent limitations, factors that can add to weapon delivery errors are:[73]

- Errors of intelligence -- including intentional deception by local allies -- regarding the presence of civilians or the status and position of an intended target;

- Mechanical or electronic malfunctions in guidance, navigation, flight control, or bomb release systems. By varying estimates these affect between one and ten percent of all missile and bomb launches -- although a "few percent" would seem closer to the truth;[74]

- Human error on the part of pilots or ground controllers, including suboptimal release of weapons, incorrect identification of targets, and incorrect transmission of target coordinates. Human error can be exacerbated by fatigue or the use of stimulants, such as dexamphetamine (so-called "go pills"); and,

- Unexpected, erratic, or severe atmospheric conditions.

These factors help explain estimates that only 60 to 70 percent of guided weapons destroyed their targets in the Kosovo war and predictions that only 75 to 80 percent would do so in the Iraq war.[75]

Among notable accidental bombings in recent wars that were likely due to faulty intelligence, system malfunction, or human error were:[76]

- The bombings in the Kosovo war of the Chinese embassy, a convoy of refugees, and a home in Bulgaria;

- The bombings in the Afghan war of a UN de-mining facility (twice), a Red Cross food warehouse (twice), the entourage of future Afghan-president Hamid Karzai (who was mildly injured), a unit of Canadian troops, coalition troops during the prison uprising near Mazaar-i-Sharif, a residential area in Kabul, several wedding parties and residences, an old age home, a boys school, and a military hospital. Also, there was an accidental release of cluster bombs over Pakistan and several reported incidents of local Afghan allies duping the coalition into attacking their rivals.

- The bombings in the 2003 Iraq war of a Syrian commuter bus near the border, a coalition artillery position, and a convoy of Kurdish fighters and Special Operations personnel (killing the brother and injuring the son of Kurdish Democratic Party president Masoud Barzani). Turkey, Iran, and Saudi Arabia were also struck during the war by six or seven stray cruise missiles. Two coalition aircraft were accidently destroyed by Patriot missiles, and a third would have been destroyed had it not struck first -- in error -- disabling a Patriot launcher it took to be Iraqi.

Contingent errors -- blunders and mistakes -- play a major role in standard explanations of collateral damage and civilian casualties. But this exaggerates the precision of current weapons and depreciates their destructive power. Apart from contingent errors and malfunctions, the inaccuracy inherent in current systems, the destructive power they possess, and the chaotic dynamics of war itself are sufficient to make it likely that substantial collateral damage and civilian casualties will occur. These attributes -- and not errors and malfunctions -- are what weigh most heavily on the civilian victims of war.

Guided-weapons constituted about 68 percent of the total air-delivered munitions used in Iraq. Among these weapons CEPs ranged between 3 and 15 meters, with the mean being approximately 8 meters or 25 feet. This is sufficiently *inaccurate* to guarantee that a significant percentage of weapons aimed at the center of a building will land in the street -- or in the building next door. Regarding cluster bombs: these can be delivered by guided or unguided means; either way, when they arrive at their destination, they act as relatively-indiscriminate "area weapons," spreading hundreds of submunitions over a 20-acre swath of land. And, although their delivery may be guided, they remain distinctly imprecise in the time dimension: five to 10 percent of their constituent bomblets fail to detonate, thus inadvertently (but predictably) becoming land mines that lie in wait for future victims.

A 2,000 pound scalpel?

Even given perfect intelligence and accuracy, most guided weapons in the 500- to 2000-pound range are sufficiently powerful to routinely cause some degree of collateral damage. This, because they carry hundreds of pounds of enhanced high-explosives wrapped in hundreds of pounds of steel -- an obvious point, but one that has been too often occluded or overlooked.

A 2,000 pound bomb typically contains 945 pounds of tritonal, a TNT derivative that is about 20 percent more powerful than TNT. By comparison, the bomb that destroyed the Murrah Federal Building in Oklahoma City on 19 April 1995, comprised approximately 5,000 pounds of ammonia nitrate mixed with fuel oil -- the equivalent of nearly 4,000 pounds of TNT. The

portable devices used by suicide bombers typically weigh between 10 and 35 pounds; these can carry a punch equivalent to 40 pounds of TNT if a plastic explosive (C-4) is used.

Most everything will be severely damaged, injured, destroyed, or killed within 20 meters of a 500-pound bomb blast and 35 meters of a 2000 lb. blast. This lethal radius can be partly mitigated by detonation inside a large, compartmentalized building -- however, as a Rand study points out: "While structures surely have some shielding effect, building collapse and spalling are secondary yet major causes of injury."[77] Averaged across different types of surfaces, a 2000-pound bomb will carve a crater 50 feet across and 16 feet deep; a 500 pound bomb will carve one 25 feet across and 8.5 feet deep. The probability of incapacitating injury to unprotected troops within 100 meters of a 2000-pound bomb blast in the open is 83 percent; for those between 100 and 200 meters it is 55 percent.[78]

Safe distances for unprotected troops are approximately 1,000 meters for 2000-pound bombs and 500 meters for 500-pound ones. Even protected troops are not entirely safe within 240 meters of a 2,000-pound bomb or 220 meters of a 500-pound bomb.[79] Thus, it is considered bold for a combat controller to bring down a strike within 800 meters of his/her position, and the Afghan strike that killed eight coalition troops and injured Hamid Karzai and 20 others is attributed to a JDAM strike within 100 meters of their position.[80] Commenting on the Karzai incident Rear Adm. John Stufflebeem of the Joint Staff rightly described the 2000-pound JDAM as a "devastating weapon", adding that, "As a pilot, when I would drop a 2,000-pound weapon, I wanted at least 4,000 feet of separation from that weapon when it went off." This distance would put an aircraft just beyond the reach of shrapnel and flying debris.

Closing the precision gap: the continuing relevance of brute force

The brute destructive power of these weapons is not ancillary to the recent success of precision attack, but central to it. *A critical threshold in the development of US capabilities was passed when the CEP for the delivery of bombs in the 500- to 2000-pound class fell significantly below the destructive radius of these weapons.* At that point, weapon delivery became sufficiently precise to ensure that targets would usually be encompassed by the destructive footprint of these weapons, which extends over an area of between one-quarter and one full acre. The power of these weapons is especially important in facilitating greater reliance on GPS-guided weapons. These weapons are cheaper than the laser-guided variety and far more flexible, allowing broader and more consistent use. But they are less precise on average. In this context, the terminal effects of big bombs serve to close the precision gap; they compensate for the lesser precision offered by GPS guidance.

The coalition employed 28,397 air-delivered bombs and missiles during the Iraq war. In addition, it employed 802 Tomahawk cruise missiles and numerous other missiles and shells that

were surface-fired. The following table denotes the unitary air-delivered bombs by weight. The percentage of each of these that was guided is noted in brackets. Cluster bombs are represented as a separate category regardless of weight. All other air-delivered bombs and missiles as well as Tomahawks constitute the "other" category. In terms of equivalent TNT, the aggregate destructive power of these weapons was approximately 6 kilotons.

2000 lb:	5,119 (.99)
1000 lb:	4,368 (.61)
750 lb:	1,625 (0.0)
500 lb:	12,618 (.56)
Cluster bombs:	1,208 (.75)
Other:	4,216 (.97)
Total:	29,199 (.68)

Probably less than 4,000 of these weapons were used inside the limits of major cities and towns, judging from the distribution of targets that the coalition pursued. However, the other areas in which the war was fought were not, for the most part, sparsely populated. Much of the war outside Baghdad was fought in areas with an average population density comparable to that of the US states of Pennsylvania and Ohio: 250 people per square mile. In the embattled zones around Karbala, Al Hillah, and An Nasiriyah, the population density was higher -- perhaps 500 per square mile.

"Precision warfare": A triumph of branding

The ease with which public discourse has adopted the language and frame of "precision warfare" is surprising. As noted above, just a few years ago military professionals would not have described most of the guided weapons used in the Iraq war as "precision" instruments, reserving this adjective instead for systems with a CEP of 3 meters or less. Common, civilian usage of the term "precision" is even more restrictive. Not many practices in civilian life that routinely missed their mark by 20 to 40 feet would be considered "precise" -- and especially not those involving the use of hundreds or thousands of pounds of high-explosives.

It is fair and accurate to assert that today's aerial munitions (if not ground launched ones) are relatively much more precise on average than those used by US forces 20 years ago. However, this statement is a comparative one, quite different in its implication than the absolute designation of current US military operations as "precision warfare". That the expenditure of 6 kilotons of explosives in aerial attacks (and more than this in ground attacks), some involving guided weapons and some not, should gain the moniker of "precision warfare" reflects a singular

triumph in branding. But we should not expect Iraqis or the world to act as though the war was, in fact, sufficiently precise in its effects.

The US public discourse on war would benefit if we recalibrated (or restored) our standards of precision in warfare, bringing them more into line with common public usage and expectations. As a baseline we might recognize that the only truly precision weapon systems in the US arsenal are Army and Marine Corps marksmen and sharpshooters who can reliably engage targets at distances up to 1,000 meters.[81] Their degree of accuracy *relative to range* is comparable to the best precision, air-delivered weapon -- which is to say that their CEP is measured in inches. *But, more than precise in targeting, they are precise (or discrete) in effect.* Their success does not depend on producing broad area effects on the receiving end; thus, successful hits leave little or no collateral damage.

5. Damage limitation and "military necessity"

A key limitation on the extent to which careful targeting procedures can reduce collateral damage is that they are subordinate to considerations of military necessity. This was made clear in the "Understanding Collateral Damage Workshop," mentioned earlier:

> Participants from the armed forces cautioned human rights groups against judging an attack as a mistake simply by virtue of the number of civilian casualties. As one military lawyer put it, "I've approved targets that could have caused some 3,000 civilian casualties, and I've raised questions about targets predicted to risk fewer than 20 civilian lives. The issue is the importance of the target."[82]

Or, as put by a senior Defense Department official in the opening days of the Iraq war: "If it's a high enough value target, you accept a higher risk of casualties."[83] During the war Secretary Rumsfeld had to personally authorize any air strike judged likely to cause more than 30 civilian deaths. As the *New York Times* reported in July 2003, "More than 50 such strikes were proposed, and all of them were approved."[84]

It is important to recognize that the value of a target is not a fixed quality. Nor is "military necessity" fixed. These both are defined in terms of *chosen* operational methods, campaign plans, and war objectives. Thus, for instance, a method of warfare that emphasizes strategic bombardment, or "shock and awe", or very-rapid "deep attack" will bring unique necessities to bear in determining the value of any particular target. What presents itself as tactical necessity is partly a matter of choice on another level. And these choices weigh heavily in balancing military necessity against civilian protection.

Differences over operational methods lay at the heart of the targeting dispute between the United States and some its European allies, especially the French, during the 1999 Kosovo war.[85] This was exemplified by French reluctance to have the Yugoslav Socialist Party building bombed because Yugoslav journalists worked there and because NATO planners anticipated as many as 250 civilian casualties in nearby apartments. The French were at loggerheads with their British and US counterparts over such targeting decisions throughout the war, leading many in the Pentagon to deride the effort as having been run by committee. But the war was also distinguished by a much lower rate of civilian casualties per bomb dropped than was achieved during the Afghan war (which employed nearly twice as many guided weapons).[86] This calls into question Secretary Rumsfeld assertion (quoted above) that no nation had ever done more to avoid civilian casualties than had the United States in Afghanistan. And it also calls into question any facile correlation of precision weapon use and minimum possible casualties. More of the one does not necessarily imply less of the other.

6. Casualty agnosticism

6.1. A failed frame: "it's not our fault and it's not a story"

Once war commences and casualties begin to mount, the persuasiveness of the "precision warfare" and "damage limitation" frames diminishes (assuming, of course, that casualty accounts are broadly reported). During the past two years, the US administration has developed and employed several frames with the specific aim of dampening the media and public response to casualty reports. The first test of casualty frames came during the second and third weeks of the Afghan war, when an intensification of the bombing campaign caused a spike in casualty reports and international opinion turned sharply against the war.[87]

Faced with frequent press queries about civilian casualties, Secretary Rumsfeld and other coalition spokespersons sought in their responses to:[88]

(1) Normalize the occurrence of casualties as an unfortunate but expected and, to some extent, unavoidable concomitant of war;
(2) Generically dismiss much of the casualty information as Taliban propaganda;
(3) Refocus blame on the Taliban as the party responsible for the war and, thus, for all the casualties associated with it, and
(4) Remind domestic and international audiences of the losses suffered by the United States on 11 September 2001.

This frame was unable to stem the tide of concern, however, as casualty reports continued to accumulate. Many critics, while supporting the pursuit of Bin Laden, saw the bombing campaign

or some facet of it -- its magnitude, intensity, or targets -- as being a not strictly necessary response to the 11 September attack. Thus, the international and (to a lesser extent) domestic response to the bombing campaign in Afghanistan was significantly determined by how much collateral damage it was causing.

The Pentagon's initial frame on casualties found some resonance in the media, but even this was maladroit. One example is a discussion on *Fox* television's "Special Report with Brit Hume" between Hume, Michael Barone of *US News and World Report,* Mort Kondracke of *Roll Call,* and Mara Liasson of *National Public Radio.*[89] Seeming to echo Rumsfeld, Hume questioned the newsworthiness of civilian casualties insofar as they "are historically, by definition, a part of war, really." Liasson agreed that too much had been made of the issue, saying that "war is about killing people" and "civilian casualties are unavoidable." Barone summarized that "civilian casualties are really not news" -- plainly an argument for disappearing the dead.

Hume *et. al.* might as well have argued that, because death and destruction are inherent to earthquakes, riots, hurricanes, and terrorist attacks, they are not worthy of attention in news coverage of such events. Murder, also, is a quite common event -- but almost always deemed newsworthy because of the relative severity of the act and the value that humans normally place on human life. To treat murder otherwise would be to normalize it -- which was the precise implication of the Brit Hume exchange with regard to the blood cost of war.

The discussion on the Brit Hume program also pilloried *ABC-TV* and *CNN* for their coverage of Afghan war casualties, which Mort Kondrake likened to *Al-Jazeera's*. However, *CNN* Chairman Walter Isaacson had already taken steps the previous week to re-shape the network's coverage of the issue, observing that it "seems perverse to focus too much on the casualties or hardship in Afghanistan."[90] As revealed in *CNN* staff memos that had been obtained by the *Washington Post*, the network's management scripted a frame for coverage of civilian casualties that virtually channeled views expressed by Defense Secretary Rumsfeld. The memos suggested that anchors should routinely append a reminder to their coverage of civilian casualties mentioning the American losses suffered on 11 September and US efforts to limit collateral damage.

As in Brit Hume's attempt to deride coverage of war fatalities as "dog bites man" journalism, Isaacson's CNN directive and the memo associated with it earned derision from others in the field. And, of course, a news frame or instance of "spin" that draws attention to itself as such is not very effective. Worse than this, the Hume exchange and *CNN* incident helped prompt a number of stories on US media bias regarding the war.[91]

6.2. A more effective frame: casualty agnosticism

Two weeks after the start of the Afghan conflict, the Bush administration also attempted a different, more subtle (and thus more effective) framing of the casualty issue: what might be called *casualty agnosticism.* Rather than seeking to rationalize casualties, deflect responsibility for them, or win the press to view casualty reports as Taliban propaganda, this frame aimed to sink the whole issue in an impenetrable murk of skepticism. Rather than making positive claims about casualties, this approach simply implied that no such claims were possible. Exemplifying this agnosticism were Secretary Rumsfeld's assertions that it was "next to impossible to get accurate information" or "to get factual information about civilian casualties." At a 5 December 2001 press conference he counseled reporters that,

> One ought to be sensitive to how difficult it is to know with certainty, in real time, what may have happened in any given situation in Afghanistan...[92]

Using similar language, UK Defence Secretary Geoff Hoon asserted: "It is impossible to know for certain how many casualties, either military or civilian, there have been as a result of coalition action in Afghanistan."[93]

The administration and high-level US military commanders were not entirely consistent in their agnosticism, however. For instance, in a 7 November 2001 interview with Jim Lehrer of *PBS News Hour,* Lehrer asked the Secretary how many Taliban had died so far and Rumsfeld replied:[94]

> Oh, my goodness. I don't have a number. There's no way I could prove it so I suppose I shouldn't give it. I see these reports come across my desk every day, twice a day. And the numbers are, you know, 20 here, 40 there, 12 here, 6 here. It just keeps adding up day after day after day.

Asked if Taliban fatalities numbered in the thousands, Rumsfeld demurred: "Oh, I would doubt it. I don't know that. I couldn't say it." But he did venture a qualitative estimate when asked about the number of civilian casualties: "Modest. Very, very few." Similarly, in late 2001, Adm. Dennis C. Blair (then Commander in Chief, US Pacific Command) broke rank on the casualty issue, linking a qualitative estimate to coalition damage limitation efforts:[95]

> The number of civilian casualties from U.S. attacks in Afghanistan has been extraordinarily small and we have many times limited our operations because of the concerns about innocent casualties.... We don't know what the exact number of casualties are from our operations but they have been very, very limited and we have made our attacks with extraordinary care.

Of course, as noted above, damage limitation protocols provide no basis for conclusions about battlefield outcomes, although they are indicative of a positive coalition effort.

What does the World Trade Center bombing teach us?

During a 4 December 2001 press briefing Secretary Rumsfeld attempted to give some substance to "casualty agnosticism" by using the World Trade Center attack as a case in point. It took more than three months for estimates of the number killed in that attack to come within ten percent of the final figure of 2,792. Rumsfeld argued that "if we cannot know for certain how many people were killed in lower Manhattan, where we have full access to the site," we can hardly expect to get reliable information on casualties in Afghanistan.[96] But the World Trade Center disaster posed unique challenges to investigators, making comparisons between it and the two wars specious.

Most of the victims of the WTC attack were buried under 1.5 million tons of smoldering debris. Clearing this compacted mass required more than 3 million hours of work. Over a period of seven months only 291 bodies were found whole; The rest had been reduced by the explosion, fire, and collapse to 20,000 body fragments. There were virtually no witnesses left to say how many died, who died, or where. Indeed, for practical purposes, the entire "site" had been obliterated. Had the victims of the 11 September attack been killed in a hundred smaller, geographically-separated incidents over a six-week period, then recovering and counting their bodies would have been much easier. A valid comparison to the Afghan war would also note that only a minuscule percentage of the victims of those wars were killed in very large structures and buried beneath them.

The *initial* estimate for those killed in the WTC attack -- which exceeded 6,000 -- were based not on body counts, site observations, or hospital records, but on missing persons reports. These flooded into various authorities immediately after the attack. A disproportionate share -- more than half, initially -- came from foreign governments, businesses, and families who could not readily locate people visiting the New York City area. By 12 October, the number of those listed as missing and possibly lost in the attack had declined to 4,500.[97] This reduction (and subsequent ones) reflected the gradual resolution of the missing persons reports, many of which were processed or withdrawn very slowly. It took another two months for the official tally of victims to come down to about where it stands today. If there is a lesson in this relevant to the investigation of casualties in war, it is that claims and lists of missing or displaced persons are not good proxy measures of the number killed. And, significantly, such measures were not used in formulating fatality estimates for civilian casualty incidents in the Afghan and Iraq wars.

Casualty agnosticism in the Iraq war

The administration carried the casualty agnosticism frame forward into the Iraq conflict. It was expressed, for instance, by Central Command chief spokesperson Captain Frank Thorp (USN) -- "Ultimately, the numbers are not knowable" -- and CENTCOM deputy director of operations General Vincent Brooks: "the number of casualties is a figure that can never be completely well-determined."[98]

Asked by a British reporter if the coalition had preliminary figures on civilian casualties or was making an effort to ascertain them, General Brooks said:

> We can't be certain even after action how many may have died, how many may have been wounded, other than those we encounter.... I don't think that in any case of recorded history of warfare a full knowledge of all casualties and all secondary effects has ever been gained, and I don't anticipate that will happen here.[99]

In this exchange, Brooks subtly changed the topic in a way characteristic of the frame. The reporter had asked for a preliminary casualty figure -- an estimate -- and whether an investigative process was underway. Brooks responded that full knowledge of "all casualties and all secondary effects" was impossible -- a fact that the reporter had not questioned.

Secretary of State Powell also took an agnostic stance on Iraq casualties, while sounding the "care in targeting" theme:[100]

> We really don't know how many civilian deaths there have been and we don't know how many of them can be attributed to coalition action, as opposed to action on the part of Iraqi armed forces as they defended themselves. But I don't think we could have done more to minimize civilian casualties or destruction of property.

And, as in the case of the Afghan conflict, administration officials occasionally deviated from message to offer low-ball estimates of casualties. For instance, Secretary Rumsfeld told troops and reporters on 2 May 2003 that "there...has not been large numbers of civilian casualties" and JCS Chief General Myers reported to *Al Jazeera* viewers that:[101]

> We don't know how many civilian casualties or deaths, because we're not on the ground. But we think they are very, very few.

Media impact

Regarding the cumulative death toll of the Iraq war, the agnosticism frame found fair resonance in the media, as exemplified by the following headlines:[102]

> "Civilian Casualties Mount, but Tally Difficult to Assess" (*Boston Globe*)
> "Casualties Hard to Avoid, Even Harder to Track (*Hartford Courant*)
> "Iraqi military death toll is as mysterious as Saddam's whereabouts" (*Associated Press*)
> "Number of casualties may never be known (*Seattle Times*)
> "Precise figures on number of Iraqis killed will likely remain elusive" (*Knight Ridder News*)
> "Number of Iraqis Killed May Never Be Determined" *(New York Times)*
> "Tallying Iraqi Casualties Pure Guesswork" (*CBS News*)
> "How many Iraqis died? We may never know" (*San Francisco Chronicle*)

What is odd about these articles is that they tend to undercut the value and significance of the newspapers' other coverage of casualties, which in some cases was quite substantial. Still, this may have served to deflect criticism for covering stories unfavorable to the war effort. And it seems a more palatable compromise than the path taken by CNN Chairman Walter Isaacson or the approach suggested in the Brit Hume exchange. The casualty agnosticism frame is a poison pill, nonetheless, because it robs the national discourse on war of one of its essential inputs.

6.3. Assessment of Casualty Agnosticism

The administration's espousal of casualty agnosticism turned on phrases like "completely well-determined," "known with certainty," and "full knowledge of all casualties and all secondary effects." Of course, the proposition that it is impossible to calculate a casualty figure that is both absolutely certain and exact is true. True, but facile. This truth holds not only for the Afghan and Iraq conflicts but for all wars and genocides. No one has individually counted and verified all the victims of the Cambodian and Rwandan genocides, for instance -- much less the victims of the World Wars or the Indochina conflicts. Nonetheless, we accept some of the casualty estimates associated with these events as sufficiently accurate and precise to usefully inform policy.

Aggregate casualty estimates are usually extrapolations based on the analysis of demographic trends or on the sampling of direct and indirect evidence (human remains, killing sites, survivor and eyewitness testimony, hospital records, and field accounts by journalists, military personnel, and others).[103] Other types of information -- for instance, population density, bombing data, or

records of troop movements -- can serve to test the plausibility of casualty claims and help in the formulation of good estimates.

In the case of the Afghan and Iraq wars, there were more than 85 incidents involving multiple civilian fatalities (sometimes running into the dozens) whose particulars were supported by multiple Western sources, on-site reporting, substantial visual records, and interviews with eyewitnesses, survivors, and sometimes hospital and aid workers. (See *Appendix 2. Guide to Surveys and Reporting on Casualties in the Afghan and Iraq Wars, 2001-2004.*) Many more incidents were less thoroughly or less reliably reported. All told, more than 350 individual incidents in the two wars gained some Western press attention. (Without doubt, some number of other incidents were overlooked.) In addition, there are many reports from individual hospitals of cumulative fatalities as well as several city-wide or multi-city surveys of hospital and burial society records. Finally, in both Afghanistan and Iraq, surveys of bombing victims and survivors have been undertaken by non-governmental organization. This constitutes a very rich evidence base.

Accepting at face value the numbers cited in press accounts (both Western and other) suggests that more than 8,700 civilians and possibly as many as 11,500 were killed in the two wars during the periods 7 October 2001 through 1 June 2002 for Afghanistan and 19 March 2003 through 1 May 2003. A more discriminating approach that focuses on Western sources only, weighs their estimates in terms of reliability, and screens them to exclude likely civilian combatants suggests the number is between 4,300 and 5,600 for the two wars combined – in other words: about half as many as the "face value" approach would suggest.

Leveraging uncertainty

Casualty agnosticism gains leverage by inflating and exploiting several indisputable facts: battlefield reporting is difficult, casualty accounts cannot be accepted wholesale or on face value, and aggregate casualty estimates are imprecise. Of course, none of these facts entail that it is impossible or "next to impossible" to gather usefully accurate aggregate data on war fatalities -- although this is what the administration implies. In fostering casualty agnosticism the administration distorts the casualty issue in two ways:

- It depreciates the value of the information flow from recent battlefields, categorically dismissing hundreds of detailed casualty reports; and

- It posits an unnecessarily high standard for what constitutes a useful degree of precision in aggregate casualty estimates.

Taking the second point first: The relevance to policy of a casualty toll does not hinge on achieving a zero margin of error or producing a discrete total (ie. a single number, rather than a range). *In strategic terms,* the difference between 9,000 and 15,000 fatalities, for instance, is only marginally significant. Whether a war's death toll registers at the upper or lower end of this range, its repercussions would be about the same. In other words: the degree of precision reflected in an estimate of "9,000 to15,000 dead" is sufficient to usefully inform policy. Expressed as a mean value with a margin of error, this would read: "12,000 dead plus/minus 25 percent". The degree of proof required to support such a statement is much less onerous than that needed to support a precise number. In other words: there is a trade-off possible between the precision of an estimate -- that is, whether it is single number or a range -- and the reliability of that estimate.

Is the flow of open source information from today's battlefields sufficient to support the derivation of usefully accurate casualty estimates? What degree of confidence should we invest in the *possibility* of formulating usefully accurate estimates? "Casualty agnosticism" says little or no confidence is warranted. We can begin to assess this proposition and its import by contrasting today's wartime information flow with yesterday's.

The most intensively reported wars in history

Contrary to the Pentagon's frame, the flow of open source information from the battlefield has never been richer than in the Afghan and Iraq conflicts. These wars represent the most intensively reported in history. If this provides no basis for deriving usefully accurate casualty estimates, then we must turn our back as well on the casualty estimates associated with all wars and genocides, including those that figured in the decision to go to war with Iraq. This is one of the radical implications of the "casualty agnosticism" frame.

Both the number of reporters at work in the field during the Afghan and Iraq wars and the technology at their disposal allowed coverage and responsiveness that was historically unparalleled. Inspection of casualty sites and interviews with eye-witnesses and survivors often happened much sooner after the events than was previously possible -- in hours or days rather than weeks or months. Multiple, independent coverage of major casualty events was the norm. And the visual record was more substantial than ever before. All of these things -- early inspections and interviews, multiple sources, and visual records -- are essential to establishing the basic facts of a casualty incident before material evidence is disturbed or memories alter and fade.

The number of journalists covering recent wars (beginning with the 1991 Gulf War) represents a three-fold increase over the average for major US operations of the previous thirty years (1960-

1990).[104] At the beginning of the Afghan war there were more than 200 foreign journalists inside the country. Their number rose to more than 800 by the war's end. All told, there were about 1,400 in the region reporting on the war. More than 2,000 journalists registered with Central Command to cover the Iraq war. More than 600 of these became embedded with military units. Hundreds more reported independently from inside Iraq, including at least 150 who were in Baghdad at the war's start. Reuters news service alone had 150 journalists in the region, 70 of them inside Iraq, including 33 embeds and 18 in Baghdad. Another source of field reports in both conflicts were humanitarian relief workers. Hundreds remained active inside the countries during the wars -- more in Afghanistan than in Iraq -- and more returned as the areas under the control of US and allied forces expanded.

Although the number of journalists covering US operations has not increased substantially since the first Gulf War, recent coverage has been both more extensive and intensive due to the multiplication of all-news channels, increased competitiveness among news organizations, and improvements in information technology. Whereas CNN enjoyed a special position during the 1991 war, it was by 2003 just one among a pack of 24-hour news providers, including the *Fox* networks, *BBC, MSNBC,* and *Al Jazeera.* By 1990, news organizations were already well along the path of transitioning from a dependence on telephone, telex, fax, land lines of communication, and air-freighted video tape to a new reliance on digital and satellite communications. Nonetheless, developments during the decade following the first Gulf War have been revolutionary in their implications for news coverage.

A richer and more rapid information flow has been facilitated by the proliferation of light-weight satellite dishes and easily portable digital cameras and satellite phones, including two-way videophones. Rugged, light-weight laptop and notebook computers also facilitate the flow. Just as important are the proliferation of high-speed data lines and broadband satellite links, which accommodate the increased flow of print, voice, and video data.[105]

While reporters and other field workers are feeding the data stream, they are also more able to tap into it.

> High-speed Internet lines in the desert and more satellites in the sky mean journalists can make a connection almost anywhere. As the conflict unfolds, they are tapping into the global communications grid regularly.[106]

In a sense, all have become a source of tips and background information for all. One result is a faster convergence of competing "sensors" on sites of purported "news" and an improved capacity to assess what is found.

On the receiving end: traditional print stories and electronic broadcasts are now supplemented by Internet news sites, blogs, and email communication, which allow for the conveyance of much more information from the field. Sites such as *Relief Web,* which is maintained by the UN Office for the Coordination of Humanitarian Affairs, and the *Humanitarian Information Center for Iraq* make available field reports from dozens of aid and development organization, governmental and non-governmental.

Digital communication and the Internet contribute not only to the broader dissemination of more information, but also to greatly improved capacities for information storage, retrieval, and collation. Thus, researchers can rapidly access and contrast multiple sources of information on casualty events. Other types of information -- such as commercial satellite imagery -- can be brought to bear as well.

There is little remarkable in the proposition that the "information technology revolution" would significantly affect the gathering and provision of news. More remarkable is the fact that Pentagon officials would extol that revolution as having provided an ability to wage low-casualty war, while denigrating its impact on efforts to investigate the effects of war. *Of course, an abiding contradiction in the "new warfare" frame is that it simultaneously maintains that today's wars are low casualty events while denying that we can know even approximately how many people are being killed in those wars.*

The quality of media coverage

As noted earlier, the English-language coverage of the Afghan and Iraq wars includes strong or good reporting on approximately 85 civilian casualty events. All told, more than 350 incidents gained at least some coverage in the Western press. Among the 85 incidents that were well-reported, approximately 45 were the subject of especially strong investigative reports.

Exemplary of the best coverage were the investigations of the collateral death and destruction associated with the December 2001 Tora Bora campaign in Afghanistan.[107] In this case, a dozen Western media teams -- print, audio, and video journalists with their interpreters and support personnel -- conducted multiple, independent site visits. Also visited were hospitals that were receiving the wounded. In addition, an aid organization that had transported many of the injured to hospitals issued a summary report. The resulting news articles included numerous interviews with attack victims, individuals who had lost family members, and other eyewitness as well as doctors, aid workers, village leaders, and Afghan military commanders allied with the United States. The reports also drew on (and often conveyed) visual surveys of bomb damage, debris, grave sites, human remains, and injured survivors. As in the case of the 28 March 2003 bombing at the Al-Nasr (Nassar) market in Baghdad, a fragment of the one of the errant missiles near Tora

Bora was recovered from a house with its type designation and serial number intact: Surface Attack Guided Missile AGM 114, serial number 232687.

Reviewing this coverage gives the impression that it is comparable or better in its extent and thoroughness to that afforded major, multiple fatality accidents in the United States, although the interval between the occurrence of the casualty events and the arrival of news teams is usually greater.

In the cases of the 1999 Kosovo war and the 2001 Afghan conflict, perhaps only 10-15 percent of the reported incidents belong in the category of "very well reported" events. These account for a disproportionately high percentage of the total civilian casualties in those wars -- between 30 percent and two-thirds. Of course, it is not surprising that aid organizations, hospitals, and affected governments would draw attention to high-casualty incidents. Nor is it surprising that media organization would respond by affording such events heavy coverage. In the case of the Iraq war, a lower percentage of individual incidents were "very well reported," but access to detailed hospital records served to more than compensate for this shortfall, allowing a more complete accounting of casualties than was possible in the Afghan war.

The fact that a relatively few casualty incidents may account for a disproportionate percentage of civilian casualties was illustrated most clearly in the 1999 Kosovo war. The definitive study of civilian bombing fatalities in the 1999 war was published by Human Rights Watch in early 2000.[108] Based on field work conducted over 20 days, HRW found credible evidence of between 488 and 527 civilian bombing deaths, involving 90 separate incidents. Although HRW acknowledges that its study might be incomplete, it stands as one of the most thorough war casualty studies available, combining onsite investigation, incident reconstruction, forensic investigation, eye-witness and survivor interviews, and a review of NATO bombing data. Of the approximately 500 civilian deaths confirmed by HRW, approximately two-thirds were attributable to just twelve casualty incidents. These incidents had been widely reported during the war.

In comparison to the HRW estimate, the lowest official Yugoslav estimate of the bombing death toll was 1,200 civilians.[109] This and other official Yugoslav estimates were often reported in the international press, usually with a disclaimer. Some journalists and media outlets also compiled incident-by-incident surveys of civilian deaths.[110] These surveys tended to focus on incidents for which there was substantial supporting information. In this category, the high-casualty incidents were well represented. Significantly, the fatality numbers associated with these surveys tended to accord more closely with the HRW post-war results than they did with the official Yugoslav death totals. Thus, even during the war (or soon after), a critical look at the available data might have cast doubt on the official Yugoslav death tally and pointed toward a toll more like the one later confirmed by Human Rights Watch.

Managing uncertainty

The majority of casualty incidents are not "well reported" events, as described above, however. In most individual cases, the extent and quality of information available soon after an event is poorer than that which typically feeds peacetime accident reports. Sometimes all that is available are second-hand reports or off-site accounts by refugees or those who have been hospitalized. These poorly-reported cases are the source of much of the error margin that must surround any aggregate estimate of war casualties. This effect is partially mitigated by the fact that these "poorly reported" events tend to involve lower than average numbers of fatalities. (As noted above, high-casualty events tend to attract better media coverage).

The fact that a majority of casualty incidents may not be intensively investigated on an individual basis during the course of a war does not mean that is impossible to derive a usefully accurate estimate of aggregate casualties. This is because (1) alternative or supplementary types of information are available and (2) there are ways to manage and limit residual uncertainties.

- Analysts can hedge against exaggeration and "false positives" in estimating casualties by discounting numbers from individual incidents in accord with the relative strength of the available evidence. This runs the risk of the opposite error -- casualty underestimation -- but it can lead to a more reliable statement of "minimum casualties".

- In assessing individual incidents, errors of "overestimation" and those of "underestimation" are to some extent offsetting. Because of this, an aggregate estimate can be more accurate than any of its sub-components.

- In cases of casualty incidents for which direct information is sparse, demographic data and information regarding the type, extent, and time of combat activity in the affected area can help in assessing the plausibility of casualty claims.

- Hospital, mortuary, and burial records and surveys can provide a more comprehensive accounting of casualties and fatalities on a geographic basis. This can supplement or substitute for estimates based on the aggregation of individual incident reports.

As noted above, hospital and burial society surveys -- not individual casualty reports -- were the most important element in formulating casualty estimates for the Iraq war. For this effort, the appropriate peacetime analogy is not accident reports but the fatality surveys that usually follow natural disasters, such as Hurricane Andrew. (Despite the singular devastation wrought by Hurricane Andrew in 1992, initial fatality estimates were only about 25 percent off the mark. Within two weeks of the storm's landfall, estimates of the numbers that had died as a direct result of the storm stabilized very close to their final value: 26 people. Estimates of indirect

deaths continued to vacillate for a few months within a range of 25 to 40 before stabilizing around 39.)[111]

Making policy in an uncertain world

It should be taken as a given that war reporting is difficult and that the analysis of war's effects is inexact. However, it is quite different and more ambitious to argue that nothing usefully accurate can be said about war's effects, despite prodigious investigative efforts.

In studies on Afghan and Iraqi war casualties produced in 2002 and 2003, the Project on Defense Alternatives synthesized a broad range of investigative work. PDA arrived at an estimate that between 4,300 and 5,600 civilian non-combatants were killed in the two wars taken together. About 25 percent of the PDA estimates derived from 85 instances of multiple civilian casualties that were well-documented in the Western press. A partially-overlapping 70 percent of the estimate was supported by survivor interviews conducted by NGOs and by multiple surveys of hospital records conducted by journalists. The remaining part of the estimates were extrapolations based on less well-documented cases reinforced and bounded by demographic data, official combat statistics, and insights derived from the strongly documented cases. Estimates were weighted to reflect the reliability of the underlying data.

The data sources and methods of investigation and analysis upon which the PDA studies were based are not unusual. Indeed, similar sources and methods are used broadly in policy analysis and in everyday life. If they are not sufficient to produce a reliable estimate of casualties -- given the flow of information from the battlefields and allowed a generous margin of error -- then much more is at risk than the estimation of casualties. If the administration's radical skepticism regarding casualties was more generally applied, it would disable all manner of cost-benefit analysis, which often presents results in approximate or probabilistic terms. Neither in policy making or in life are there many areas of absolute certainty or precision. No population statistics, for instance, are "completely well-determined" or "known with certainty." But, wisely, the administration does not argue for such a broad application of its radical skepticism. Instead, it seeks a special dispensation applicable only to the casualty tolls of the wars it wages.

The "casualty agnosticism" frame also gives the false impression that official policy proceeds on the basis of no expectations regarding the likely incidence of casualties. In fact, as evinced by some of the testimony cited above, casualty estimation is at work in official circles, although it is only occasionally made explicit. And, of course, the strong implication of both the "precision warfare" and "damage limitation" frames is that casualties will be "low" -- not indeterminate. This illustrates that the choice we face is not between making or not making estimates, but

instead between making them (and their evidentiary base) explicit or leaving them implicit and unexamined.

Clearly, casualty estimates should be treated as "rolling estimates" -- that is: as reflections of a body of evidence that is subject to change. This may frustrate the desire for certainty and finality, but the unrelenting demands of policy-making leave no other choice.

7. "We don't do body counts": The irrelevance of enemy combatant casualties

The final frame under examination concerns enemy combatant casualties. During the Afghan and Iraq wars Pentagon officials frequently claimed that, as a matter of policy, the enemy's battlefield dead were not being counted.[112] Rear Admiral John Stufflebeem, the deputy director of operations for the Joint Chiefs, forcefully posed the Pentagon frame regarding enemy casualties in late October 2001, when fighting in Afghanistan escalated:

> I will tell you that as a military institution, we don't keep body counts, or at least we're not keeping body counts. Maybe in past wars it was done. But we're not doing that.[113]

It was during Operation Anaconda, the post-Afghan war mop-up effort in the Shahi Kot region of Afghanistan, that Defense Secretary Rumsfeld famously said: "I don't do body counts."[114] General Tommy Franks similarly made the point when the operation ended on 18 March 2002: "You know we don't do body counts."[115]

The public rationale for this omission was that "body counts" are a poor indicator of success in war -- and thus "irrelevant" -- and that using them encourages a simplistic, attrition approach to warfighting. Pentagon leaders and spokespersons also claimed that, as in the case of civilian casualties, the number of enemy combatant fatalities and injuries could not be known with certainty. Along these lines, the Central Command's chief spokesperson, Capt. Frank Thorp (USN) asserted in early April 2003 that,

> Ultimately, the numbers are not knowable.... And besides, that number may not be an indication of anything.[116]

A week later, another Pentagon spokesperson, Lt. Col. Dave Lapan (USMC), further explained:

> It's not a useful figure to us. It's not a measure of effectiveness.... It doesn't really matter militarily how many Iraqi soldiers may be killed.[117]

Officials commonly traced their reluctance to produce casualty estimates to the Vietnam war experience with body counts, which had been deleterious.[118] Secretary Rumsfeld, for instance, explicated his "don't do bodycounts" remark with the observation that the United States "tried that in Vietnam, and it didn't work."

In fact, the strong implication that the US armed forces did not estimate enemy casualties during the Afghan and Iraqi conflicts was false. Estimates were made frequently and at every level. As noted earlier, Secretary Rumsfeld said during the Afghan conflict that combatant casualty reports crossed his desk "twice a day":

> And the numbers are, you know, 20 here, 40 there, 12 here, 6 here. It just keeps adding up day after day after day.[119]

Casualty estimates made at the division level or below were frequently shared with the press during the Iraq war -- and especially with embedded reporters. Many of these were utilized in the Project on Defense Alternatives study on Iraqi war casualties and are recorded in an appendix to that study.[120] Some estimates of the enemy killed in battle were classified, but found their way to journalists nonetheless.[121] Sometimes official estimates of enemy killed in battle were made public by Central Command itself.[122] However, in at least one case -- the first armored foray into Baghdad -- the high-level official estimate may have reflected a psychological warfare effort, as has been suggested by Lexington Institute analyst Dan Goure.[123] (Partly for this reason, high-level official estimates of enemy killed in battle were not used in the PDA study of Iraqi war casualties.)

Another potential source of information on Iraqi casualties (besides observations made during and after battles) was the burial of the dead by coalition troops.[124] Throughout the war, coalition burial details dug graves, marked them, recorded their GPS locations, and collected documentation on the dead (such as dog tags, identification papers, and other personal effects). Much of this information was forwarded to the Mortuary Affairs Office at Camp Doha, Kuwait. Mortuary Affairs teams also provided the Red Cross/Red Crescent with information on fatalities and with assistance in managing temporary cemeteries and burial sites.

Casualty estimates in the Afghan and Iraq conflicts constituted one factor among several used to assess the size of engaged units, the intensity of fighting, and the residual capability of enemy units under attack. But this does not imply that America's military was using "body counts" as a leading indicator of progress in the war or that it had embraced a simple attrition approach to warfare. There is no evidence that America's military was chasing a "body count" in recent wars. In this respect, America's armed forces have learned the lesson of the Vietnam experience.

Based on the Vietnam experience, it is entirely appropriate for military leaders, both civilian and uniform, to remind the nation and its armed forces that "body counts" should not serve as a leading measure of progress toward victory. Vietnam also taught that a rising level of casualties can negatively affect public support for a war effort. In this case, however, the lesson is not that leaders should avoid making casualty estimates or withhold them from public scrutiny. Instead, our armed forces should strive to keep casualties as low as possible, while fully disclosing the facts concerning war's toll, as best they are known. This may breed controversy, but that is the price we must pay for the strengths that democracy affords us. In sum: The Vietnam experience fully justifies the Pentagon's refusal to use "body counts" as the measure of victory; It does not, however, justify a refusal to publically disclose casualty estimates -- no more than does the onerous cost of the Vietnam war justify ignoring the incremental costs of future wars or keeping cost estimates under wraps.

In the face of press inquiries about casualties, the Pentagon's repeated insistence that casualty counts were irrelevant was a way of saying that the press was asking the wrong question. Besides often refusing to answer, Pentagon spokespersons sought to redirect the public discussion. They sought to displace interest in casualties with a more purely and uniformly military perspective on war. This perspective was centered on the goal of military victory and on the Pentagon's preferred way of measuring progress toward that goal (which the Pentagon only trusted itself to arbitrate).

It is the statutory responsibility of military leaders to present a military perspective, of course. But this task is distinct from and does not preclude a presentation of the basic facts pertaining to important events. At any rate, it would be inappropriate for the press and the public to adopt a purely military perspective on war. War making should always be bounded by informed political decisions. This is the only way to ensure that the military perspective is bounded by a political one, rather than the other way around.

The nation needs to hear and understand the military perspective; it also needs the unadulterated facts (as best they are known). Any event in which American troops are dying and killing in fair numbers is intrinsically important as a matter of public policy. The "facts of the matter" bear on actions for which the American public is ultimately responsible. Among other things, these facts -- in this case, casualty estimates -- help the public appreciate the cost of war. The Pentagon frame on Iraqi combatant casualties served to occlude this important variable in the war calculus.

8. Conclusion: The strategic significance of the casualty issue

Defense Secretary Rumsfeld partially elucidated the strategic significance of the casualty issue in a November 2001 interview with Jim Lehrer. Referring to the prospect of Afghan civilian casualties, Rumsfeld said:

> [I]f you kill a lot of civilians, the people inside Afghanistan will believe you're not discriminating and that you are against the people of Afghanistan... [I]nstead of defecting and leaving Taliban and leaving al Qaeda, they're going to be more supportive and they're going to be against the United States and the coalition forces. And we don't want that. ... [T]here are a lot of Muslims in the world. To the extent you behave in a way that suggests that you don't really care about whether or not you're killing soldiers and people that are terrorists or civilians...it makes life difficult for countries that are supporting us that have large Muslim populations.[125]

Here, Rumsfeld identifies some of the more immediate negative repercussions of incurring civilian casualties. One concern is that it drives members of the aggrieved identity group into the arms of the opposition or, at least, into an anti-American stance. The effect can be to strengthen the adversary, weaken America's alliances, or both. The backlash can also take the form of diffuse, revenge attacks on America's interests and those of its friends -- a "cycle of violence" dynamic.

More generally, civilian casualties and collateral damage can sap the legitimacy of a military operation (especially if it has been rationalized as a "human rights" enterprise) and they can tarnish the reputation of the prosecuting power. This can broadly undermine cooperative relationships and even prompt counter-balancing behavior (that is, nations coming together to constrain the errant power).

These various repercussions of war and casualties might be called "pyrrhic effects" -- after Pyrrus, the Molossian general and king who won a too costly victory against the Romans in 279 BC. Unlike the direct costs of war, "pyrrhic effects" are inadvertent outcomes that subtract from the benefits of victory. In our usage it refers especially to those consequences of war that negatively effect the freedom of action, military power, or strategic influence of the victor.

8.1. Acceptable casualties

Although Secretary Rumsfeld's comments address some of the pyrrhic effects associated with war, he underestimates the difficulty of managing them. Rumsfeld focuses on how US damage limitation efforts might mitigate the negative reactions to US military operations -- as though the

casualty controversy turns principally on whether or not the United States makes a good faith attempt to limit collateral effects. World reaction to the Afghan and Iraq conflicts suggest that the problem is more complicated and acute than Rumsfeld contends:

- Good faith efforts at damage limitation do not matter as much as actual casualty outcomes. And the Afghan and Iraq experience suggest that the threshold for acceptable civilian casualties is quite low.

- Especially relevant to the Iraq war: care and precision in targeting may not at all mitigate negative reactions to civilian casualties when wars are perceived to be unnecessary or not purely defensive in character.
- More generally: care and precision in targeting may not matter much if a nation's war plan is perceived to unnecessarily emphasize types of operations that put large numbers of civilians at deadly risk (such as urban bombardment).

- Finally, it is worth noting that, if a war is viewed as not strictly necessary, even the military casualties it incurs may be viewed as unjust. And, just or not, military fatalities are as likely as civilian ones to inspire acts of vengeance.

What constitutes "acceptable casualties" from the vantage point of containing pyrrhic effects depends on the war in question, its rationale, how it is fought, and how it articulates with existing fault lines in the global community. If there is a secular trend evident in world attitudes regarding war, it is a steady lowering of the ceiling on the number of casualties considered acceptable. This may be partly a reaction to the mass wars and genocides of the Twentieth Century. But it also correlates with the trend in media coverage of wars. News reporting on war's horrors has grown steadily more detailed and intimate. Its extent, audience reach, and pace also have grown continuously. Finally, it may reflect the hope that international institutions and regimes offer more pacific means of conflict management and resolution.

Regarding America's post-9/11 military operations: It is probably the case that their pyrrhic effects would have been minimal had they focused narrowly on destroying Al Qaeda and had they claimed no more than one or two hundred non-combatant lives. Of course, in the actual case, these operations went far beyond the hunt for Al Qaeda to include two conventional wars whose objectives were regime change. By February 2004, neither war had yet produced a stable peace in the subject countries, but they had imposed more than 12,000 fatalities among US adversary armies as well as more than 6,000 non-combatant deaths. Based on historical experience, it is reasonable to assume that they additionally involved as many as 50,000 non-fatal casualties.

8.2. Effects on the ground

More than 300 US and foreign allied troops were killed in Afghanistan and Iraq during the period between the end of major combat in those countries and 1 February 2004. Regarding Iraq, the US Central Command has cited a frequency of anti-coalition activity since 1 May that indicates a total of more than 4,700 attacks -- an average of approximately 17 per day.[126] This may reflect the activity of no more than 5,000 active insurgents, as estimated by General John Abizaid, but a broader discontent is also evident:

- A four-city poll by Zogby International conducted in August 2003 found that 49 percent of Iraqis described the attacks on US troops as "resistance operations," while only 29 percent saw them as attacks by "Baath loyalists."[127]

- A poll of Baghdad residents conducted by the Gallup Organization in September and October 2003 found that 36 percent of the city's inhabitants thought the attacks on the United States were either completely, somewhat, or sometimes justified.[128]

- The Zogby poll also found that over 55 percent of Iraqis gave a negative rating to "how the US military is dealing with Iraqi civilians," while 20 percent gave the US military a positive rating.

Although most Iraqis have seemed willing to tolerate a temporary US troop presence in their country, this has had less to do with trust and gratitude than with fear of chaos.[129] The ambivalence of Iraqis is made clear in an October-November 2003 poll by Oxford Research International (ORI).[130] The ORI poll found that 42 percent of respondents felt that Saddam's fall was the best thing to have happened in 2003, while 35 percent identified the worst thing to have been the war, bombings, and defeat. Seventy-nine percent of respondents expressed no trust in the US-led military forces occupying the country; 73 percent similarly lacked trust in the Coalition Provisional Authority.

In both Afghanistan and Iraq, expressions of anger and even hatred toward the United States, although a minority sentiment, have been frequent and visceral among those who have lost family members, suffered injury, or tangled with coalition troops.[131] Such sentiments may spread to broader numbers along village, kin, and tribal lines, serving to intensify political, cultural, and nationalist tensions with occupation forces. This can feed terrorist and insurgent activity, providing a base of support, if not recruits.

8.3. Impact on world opinion

World reaction to the post-9/11 wars has been distinctly negative in most places. (Notable exceptions are Israel, Australia, and the United Kingdom; India is a partial exception).[132] Often this reaction has correlated with opposition to bombing campaigns.[133] Following the Iraq war, a Pew Research Center poll found that majorities in 13 out of 21 major countries surveyed thought the United States had not tried hard enough to limit casualties.[134] In 11 of these, the proportion of the population feeling disdainful of US bombing efforts was very large -- close to or surpassing 70 percent. (Conversely, in eight countries, Pew found that majorities thought the US had tried very hard to limit damage, but in only two of these -- the United States and Israel -- was the approving majority very large.)

Parallel to negative attitudes regarding the military campaigns, support for the United States and its leadership role has declined worldwide, including among allied nations.[135]

- The June 2003 Pew survey found that, since the year 2000, the proportion of citizens having a favorable view of the United States fell from 78 to 45 percent in Germany, 56 to 34 percent in Brazil, 50 to 38 percent in Spain, 76 to 60 percent in Italy, and 58 to 46 percent in South Korea.

- Majorities in six of seven reported European countries want to loosen their ties to the United States; the six are France, Germany, Russia, Italy, Spain, and Turkey.

- Similarly, a September 2003 poll by the German Marshall Fund found that support among Europeans for strong US leadership had declined from 64 percent to 45 percent, while opposition to strong US leadership rose from 31 percent to 49 percent.[136] That is: while Europeans once favored strong US leadership by a 2-to-1 margin, they now oppose it 49:45.

The decline in support for the United States among its allies is even more regrettable for the fact that it had surged immediately following the 11 September attacks. But, as noted by *New York Times* reporter, Richard Bernstein: "Gone are the days...when 200,000 Germans marched in Berlin to show solidarity with their American allies, or when *Le Monde,* the most prestigious French newspaper, could publish a large headline, 'We Are All Americans.'"[137]

The Pew report also concluded that "the bottom has fallen out of support for America in most of the Muslim world" -- a conclusion well supported by other surveys and sources.[138]

- According to the Pew survey, support for the United States in Turkey had dropped from 52 to 15 percent since 1999-2000; in Morocco, from 77 to 27 percent; in Indonesia, from

75 to 15 percent; in Pakistan, from 23 to 13 percent; and among Muslims in Nigeria, from 71 to 38 percent.

- In seven of eight Islamic nations, majorities perceived a significant degree of military threat from the United States, including more than 70 percent of Indonesians, Nigerians, Pakistanis, and Turks. More than 50 percent of Kuwaitis, Lebanese, and Jordanians shared such fears.

8.4. Strategic consequences

Correlated with the decline in international public support for the United States and US leadership have been a variety of strategic developments that bear negatively on US security interests:

- Among the most serious of these has been the convergence of several major US allies and several potential US competitors -- France, Germany, Russia, and China -- in opposition to US policy regarding Iraq. This opposition continued after the war to contribute substantially to the difficulties faced by the United States in Iraq, insofar as few US allies in Europe or elsewhere were willing to share the risks and burdens of occupation.

- Negative public reactions to US war campaigns also limited the capacity of Turkey and India to cooperate with the US effort in Iraq. Turkish hesitance stymied American efforts to open a large, second front in the war. India retreated on its pledge to send peacekeeping troops.

- In Pakistan, strong indigenous opposition to ongoing US operations in Afghanistan and Iraq has limited the government's capacity to suppress Al Qaeda and Taliban activity in its northwestern provinces, which have come under Islamist control.

- More generally, anger in the Muslim world translated into significant electoral gains for Islamic parties in Pakistan, Turkey, Morocco, and Malaysia. The influence of Islamist groups and organizations seems to have accelerated elsewhere as well -- notably throughout Southeast Asia and East Africa.[139]

- There has been a resurgence of terrorist activity after a brief recession following the Afghan war. Although Al Qaeda has been disrupted at the center, there has been an increase in decentralized attacks by members of its broader network.[140] Also, new locally-based terrorist cells have become active in the wake of the Afghan and Iraq

conflicts. Post-war Iraq has emerged as an especially fertile breeding ground for terrorist activity.

Between December 2001 and early January 2004 there were 31 major terrorist incidents possibly related to Al Qaeda, its affiliates, or kindred groups *excluding* attacks in Russia, Kashmir, Israel, the West Bank, or Iraq.[141] (A major terrorist incident is defined here as one involving five or more fatalities or exceptional levels of material damage.) In addition: Russia and Kashmir have suffered several major incidents during this period; Israel and the West Bank, dozens; and Iraq, more than 20 since 1 May 2003.

8.5. Filler for the precision gap

The role of casualties in generating, contributing to, or reinforcing pyrrhic effects strongly affirms the need to keep even adversary casualties -- especially civilian ones -- to a minimum. It also helps motivate US efforts to shape how publics worldwide perceive and understand casualties. The experience of America's post-911 wars suggest that the ability of the US armed forces to wage wars with acceptably low casualty levels still falls short by more than a full order of magnitude. This is especially true regarding wars that are not broadly perceived as strictly necessary or defensive.

The manifest limits of precision warfare increase the importance of perception management campaigns as a complement to US military operations. In this light, DoD sought consistently during the Afghan and Iraq conflicts to promote interpretative frames -- ways of understanding war -- that occluded the human cost of the wars. As reviewed in this report, DoD employed four principal frames:

- The *new warfare* and *damage limitation* frames focused attention on weapon performance parameters and targeting protocols as putative indicators of low casualty outcomes -- even though the relationship of these parameters and protocols to actual casualty outcomes had not been empirically quantified and is, at best, only contingent.

- In turn, the *casualty agnosticism* frame impeded serious consideration of empirical evidence from the battlefield, which the frame marks as unreliable. This, it does by positing an unattainable standard for casualty estimates: that they be both certain and precise. Based on this standard, the frame elides the flow of journalistic and other battlefield information on collateral damage and casualties, although the data stream is richer today than ever before. The standard posited by *casualty agnosticism* is not only unattainable, but also unnecessary: Casualty estimates qualified by significant margins of

error could still usefully inform policy. This fact, too, has been obscured by the *casualty agnosticism* frame.

- Finally, the *casualty irrelevance* frame sought to mobilize the memory of the Vietnam debacle in order to rationalize the administration's refusal to disclose casualty estimates. But the frame misapplies the lesson of Vietnam -- which is that body counts should not be used to measure progress toward victory. This is not an argument against estimating and disclosing casualties, although the frame casts it that way. In so doing, it robs the American polity of information vital to assessing its military goals. In essence, it sets the achievement of military objectives against the political process by which those objectives are defined.

As the polls cited earlier suggest, these efforts at perception management have been distinctly ineffective with regard to their putative primary target: foreign public opinion. They may have been more effective in influencing domestic US opinion, however -- judging from how well they registered in the US media's coverage of the Afghan and Iraq wars.

Why might the frames have been more successful in the US market than abroad? The successful projection of a news frame hinges in part on a receptive and deferential news media. The DoD's war frames, assessed on their merits, prove to be analytically weak and tendentious. When promoting them, DoD and other officials must trade on the authority of their positions. But deference to national and military authorities usually divides along national lines: foreign media more consistently violate or refuse Pentagon frames.[142] Clearly, the editorial management of *Al Jazeera* and that of *CNN* applied very different criteria in deciding what constituted appropriate coverage of casualties in the Iraq war.

8.6. America's damaged discourse on war

Although DoD's interpretative frames may have been more successful in shaping the US public discourse on the wars, their domestic role was neither necessary nor good. It was not necessary from a defensive perspective because the efforts of America's adversaries to manipulate US public opinion proved hopelessly stolid and inept. Indeed, in the case of Iraq and its irascible Minister of Information, Mohammed Saeed al-Sahaf, the effort was comical, leading President Bush to jokingly comment about al-Sahaf: "He's my man, he was great -- a classic."[143]

With regard to the American public, the perception management efforts examined in this report could only serve to impede a full appreciation of war's blood cost and of its repercussions, thus making a sober assessment of the war option more difficult. In short: The efforts were antithetical both to well-informed public debate and to sensible policy-making. The casualty

issue was not alone in suffering such treatment during the prologue to the Iraq war. Distortion and miscalculation infected the official discourse on many of the key issues surrounding the war, including: the magnitude and immediacy of the threat, the likely financial cost of the war, the troop requirement, and the difficulty and expense of post-war reconstruction and stabilization efforts.

The handling of the casualty issue stands apart in one respect, however. Any effort that seems designed to "disappear the dead" is bound to broadly alienate world opinion. More than just distorting the national discourse on war, it damages America's image abroad. Furthermore, the ways in which the defense establishment has sought to frame this issue can only contribute to the perceptual divide that separates America from much of the rest of the world, thus undermining international understanding and cooperation.

It would be encouraging to conclude that the tendency to "disappear the dead" resides in the handling of just one war or one set of wars. If this were so, it might be easily excised. However, several of the problematic concepts and "news frames" examined in this report predate both the Iraq and Afghan conflicts. The problem resides, more than anywhere else, in the confident belief that the United States has discovered a new way of fighting wars that is virtually bloodless -- a belief that seems immune to the fact that these "new wars" (beginning in 1991) have claimed the lives of approximately 50,000 people (of which 10,000 were non-combatants). Excising this conceit may prove difficult because it pertains to the utility of America's post-Cold War military predominance. Nonetheless, until America's opinion leaders disabuse themselves of this notion, the nation will be brought to war easily, but left unprepared for and perplexed by the consequences that follow.

Appendix 1. A note on media "spin" and news frames

This report uses "spin" or "spinning" in the sense suggested originally by William Safire: It is the act of selectively describing or interpreting an event in a way that patently favors a partisan interest. "Framing", by contrast, aims for a broader, more lasting effect. And its partisan nature is not self-evident. Framing implicitly links an event or story with a cluster of explanatory or interpretative propositions -- a "frame"-- that lends broader meaning or significance to the event or story. A successful frame can become the touchstone for interpreting a whole class or category of phenomena, such as criminal acts, poverty, or the occurrence of civilian casualties in war.

Essentially, spin is a form of damage control that aims not so much to win general assent as to impede the formation and codification of a consensus unfavorable to the spinners' interests. It is a defensive stratagem for negotiating the telling of bad news. When the leading or dominant interpretation of an event is detrimental to a particular interest, the affected party can respond by offering its own, more favorable "spin" or interpretation. The minimum goal would be to mitigate the impact of the dominant interpretation by recasting all interpretations as "partisan" in nature. For third parties, this can alter the calculus of what constitutes a "balanced" telling of a story. The success of spin depends more on an appeal to "evenhanded-ness" than an appeal to reason. Thus, it does not necessarily fail when the interpretations it proffers seem tendentious or even idiosyncratic. When it works, spin can keep a "case" (or an argument) open that would otherwise seem shut or decided.

The prime target of spin is the media itself -- a profession that values "balance" and that ostensibly operates under the assumption that "there are two sides to every story." By bending one side of the story as far as credibility will allow, spin aims to favorably rebalance the reporting of the story overall. Safire traces the popularization of the term to a *New York Times* editorial describing efforts to affect the public's perception of the 1984 Reagan-Mondale presidential campaign debate.

Turning to the practice of media "framing": It can serve to connect a story or event to propositions about causality, responsibility, or consequences. Or it can associate a story or event with specific moral or legal precepts. Different theories about the causes of crime or poverty, for example, can act as alternative or competing frames for a story or an entire class of stories.

Frames are often invoked within a story by means of "buzz words", stock phrases, or symbolic content. They also can be invoked by associating two stories, one of which serves to explicate the other. Through regular associative acts of this sort, a frame can become the "common sense" complement to a class of events or stories. And in these cases, the framing of an event can seem spontaneous and non-controversial.

Effective framing quietly mobilizes a host of propositions, while arguing none of them. In a sense, frames serve as cognitive "shortcuts". As such, they can facilitate action in a complex world. However, for the same reason, they also can act to elide or "short circuit" public debate. Alternative or competing frames are always possible, but the act of framing tends to present a particular frame as comprising exclusive or universal truths.

Sources on media spin and framing:

Editorial, "The Debate and the Spin Doctors," *New York Times,* 21 October 1984;

Timothy Cook, *Governing With the News: The News Media as a Political Institution* (University of Chicago Press, 1998);

Robert M. Entman, "Framing: Toward clarification of a fractured paradigm," *Journal of Communication,* 43:4 (1993);

Howard Kurtz, *Spin Cycle: How the White House and the Media Manipulate the News,* (New York: Simon and Schuster, 1998);

Shanto Iyengar, *Is Anyone Responsible? How Television Frames Political Issues* (University of Chicago Press, September 1994);

Chris Mooney, "Breaking the Frame," *The American Prospect* (April 2003);

Stephen D. Reese, et al, eds, *Framing Public Life: Perspectives on the Media and Our Understanding of the Social World* (Mahwah, N.J.: Lawrence Erlbaum, 2001);

Pamela Shoemaker & Stephen Reese, *Mediating the Message: Theories of Influences on Mass Media Content* (New York: Longman, 1996);

James W. Tankard and Randy Sumpter, "The Spin Doctor: An Alternative Model of Public Relations," *Public Relations Review,* 20:1 (Spring 1994), and

William Safire, "On Language: Calling Dr. Spin," *New York Times,* 31 August 1986, sect. 6, p. 8.

Appendix 2. Guide to Surveys and Reporting on Casualties in the Afghan and Iraq Wars, 2001-2004

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A2.1. Casualty estimates for the US-Afghan war
A2.2. Casualty estimates for the US-Iraq war, 2003
A2.3. Incidents in the Aghan and Iraq wars involving multiple civilian casualties that were "well-reported" by the western press

A2.1. Casualty estimates for the US-Afghan war

For a projection of Afghan civilian fatalities based on multiple sources, see: Carl Conetta, *Operation Enduring Freedom: Why a Higher Rate of Civilian Bombing Casualties* (Cambridge, MA: Commonwealth Institute, Project on Defense Alternatives Briefing Report #11, 24 January 2002), http://www.comw.org/pda/0201oef.html.

Estimates of Afghan combatant deaths and deaths related to the war-related humanitarian emergency can be found in: Carl Conetta, *Strange Victory: A critical appraisal of Operation Enduring Freedom and the Afghanistan war*, Project on Defense Alternatives Research Monograph #6 (Cambridge, MA: Commonwealth Institute, 30 January 2002), http://www.comw.org/pda/0201strangevic.html. See especially Section 1.1 and Appendix 1.

Key surveys covering significant samples of Afghan civilian casualty incidents:

Fatally Flawed: Cluster Bombs and Their Use by the United States in Afghanistan (New York: Human Rights Watch, December 2002)

Afghan Portraits of Grief: The Civilian/Innocent Victims of US Bombing in Afghanistan (San Francisco: Global Exchange, September 2002)
http://www.globalexchange.org/countries/afghanistan/apogreport.pdf

Dexter Filkins; John F. Burns and Carlotta Gall, "Flaws in US Air War Left Hundreds of Civilians Dead," *New York Times,* 21 July 2002,
http://www.comw.org/pda/fulltext/020721filkins.html

David Zucchino, "'The Americans ... They Just Drop Their Bombs and Leave'," *Los Angeles Times,* 2 June 2002, p. 1, http://www.commondreams.org/headlines02/0602-01.htm

John Donnelly and Anthony Shadid, "Civilian Toll in US Raids Put at 1,000; Bombing Flaws, Manhunt Cited," *Boston Globe,* 17 February 2002, http://www.commondreams.org/headlines02/0217-03.htm

Laura King, "AP review of Afghan civilian casualties suggests toll in hundreds; Taliban inflated count," *Associated Press Worldstream,* 11 February 2002, http://www.comw.org/pda/fulltext/020211king.html

A comprehensive record of all civilian casualty incidents reported in the press with associated "face value" estimates is provided by: Professor Marc W. Herold, *A Dossier on Civilian Victims of United States' Aerial Bombing of Afghanistan: A Comprehensive Accounting* (May 2003) http://pubpages.unh.edu/~mwherold/

Additional articles of special interest relating to Afghan civilian casualties:

Susan B. Glasser, "Afghans Live and Die With US Mistakes; Villagers Tell of Over 100 Casualties," *Washington Post,* 20 February 2002, p. 1, http://www.washingtonpost.com/ac2/wp-dyn/A36012-2002Feb19?language=printer

Ian Traynor, "Afghans are still dying as air strikes go on; But no one is counting," *Guardian*, 12 February 2002, http://www.guardian.co.uk/Archive/Article/0,4273,4354222,00.html

John Donnelly, "US Targeting of Vehicles is Detailed; Airstrikes hit some civilians on roadways,"
Boston Globe, 19 February 2002, http://www.commondreams.org/headlines02/0219-02.htm

"US silence and power of weaponry conceal scale of civilian toll," *Sydney Morning Herald* 26 January 2002, http://nucnews.net/nucnews/2002nn/0201nn/020126nn.htm#305

A2.2. Casualty estimates for the US-Iraq war, 2003

For a calculation of total fatalities, including Iraqi military casualties see: Carl Conetta, *The Wages of War: Iraqi Combatant and Noncombatant Fatalities in the 2003 Conflict* (Cambridge, Massachusetts: Commonwealth Institute, October 2003). Appendix 1 of this report provides a survey of reports on combatant casualties.

A comprehensive record of all civilian casualty incidents reported in the press with associated "face value" estimates, see: *Iraq Body Count Database,* available at: http://www.iraqbodycount.net/bodycount.htm

Note: the two above sources differ in that the first, Wages of War, attempts to provide a total fatality estimate corrected for problems of bias and incompleteness. By contrast, *Iraq Body Count* provides a comprehensive survey of incidents and estimates as reported in various media.

Key primary sources for estimating civilian casualties in the Iraq war are:

Campaign for Innocent Victims in Conflict, *Iraq war victim survey spreadsheets: Karbala, Al-Naseryaa, Al-Bassra, Al-Najafa, Al-Qaadesya* (Washington DC: CIVIC Worldwide, 2003), available at: http://www.civicworldwide.org/surveys.htm

Niko Price, "AP, in first nationwide tally of Iraqi civilian war deaths, counts at least 3,240," *Associated Press,* 11 June 2003;

Laura King, "Baghdad's Death Toll Assessed; A Times hospital survey finds that at least 1,700 civilians were killed and more than 8,000 injured in Iraq's capital during the war and aftermath," *Los Angeles Times,* 18 May 2003, p. 1; and,

Matthew Schofield, Nancy A. Youssef and Juan O. Tamayo, "Civilian Death Toll in Battle for Baghdad at Least 1,100," *Pittsburgh Post-Gazette,* 4 May 2003.

For partial compendia of individual incidents see:

Off Target: The Conduct of the War and Civilian Casualties in Iraq (New York: Human Rights Watch, December 2003)

Melissa Murphy and Carl Conetta, eds., *Civilian Casualties in the 2003 Iraq War: A Compendium of Accounts and Reports* (Cambridge, Massachusetts: Commonwealth Institute, May 2003);

Javier Barandiarán, et. al., *Evaluation of the Attacks on the Civilian Population of Baghdad Carried out by the Governments of the United States of America, the United Kingdom, and Allied Countries Between 20 March and 15 April 2003* (Madrid: Spanish Brigade Against the War, April 2003).

Iraq Peace Team, *Civilian Casualties and Infrastructure Damage in the 2003 US-led Attack on Baghdad,* March 20-April 1, 2003, http://lists.inlet.org/pipermail/baghdadjournal/2003-April/000035.html

A2.3. Incidents in the Aghan and Iraq wars involving multiple civilian casualties that were "well-reported" by the western press

Distinguishing these multiple-casualty incidents were multiple, independent reports in the western press involving onsite visits and observation, interviews with eye-witnesses and aid personnel, and often visual records. The 85 incidents listed here represent a subset of over 400 reported incidents in the two wars. Categories of reports *not* included here are (1) incidents with multiple reports in the non-Western press only, (2) single report incidents, (3) reports based on refugee or hospital interviews only, and (4) reports based on Taliban or Iraqi government sources only.

Afghanistan, October 2001-April 2002 (48+ incidents)

9 October: UN facility, Kabul
10 October: Sultanpur Mosque, Jalalabad
10 October: Darunta, Torghar, and Farmada, Nangarhar
11 October: Kardam, Nangarhar
11 October: Qala-e-Chaman, Kabul
12 October: Qargha, Kabul
13 October: Qila Meer Abas, Kabul
15 October: World Food Program warehouse, Afsotar, Kabul
16 October: Red Cross warehouse, Kabul
17 October: Kandahar, several incidents
18 October: Qalaye Zaman Khan area, Kabul
19 October: Qala-e-Wakil, Kabul
20-21 October: Tarin Kot, Uruzgan
21 October: Parod Gajaded area, Kabul
21-22 October: Shakar Qala, Herat; two incidents
21 October: Khair Khana, Kabul
24 October: Kandahar, bus attack
23 October: Chowkar Kariz, Kandahar
24 October: Ishaq Sulaiman, Herat
25 October: Shakar Qala, Herat
26 October: Wazir Abad, Kabul
26 October: Red Cross warehouse, Kabul

27 October: several villages north and northeast of Kabul
28 October: Char Qala and Macroyan areas, Kabul
29 October: Jebrael, Herat
30 October: Sholgara and Kishindi, Balkh; refugee camp
31 October: Red Crescent clinic, Kandahar
9-28 November: villages north of Kandahar
13 November: Al Jazeera office and several residential areas, Kabul
16 November: religious school and mosque, Khost, Paktia
17-18 November: Charykari, Khanabad and nearby villages in Kunduz province
1 December: Kazi Karez, Kandahar
1 December: Kama Ado, Nangarhar
1 December: Balut, Akal Khan, and Gudara Talkhel in Nangarhar
2 December: Kili Sarnard, Nangarhar
2 December: Landi Khiel, Nangarhar
2 December: Agam, Nangarhar
4-5 December: Shahwali Kot, Kandahar
11 December: Pol e Khumri, Baghlan
20 December: Asmani Kilai and Sato Kandaw, Paktia
27-26 December: Tori Khel, Paktia
29 December: Niazi Qalaye, Paktia
2-10 January: Zhawarkili, Paktia
9 January: villages near Khost, Paktia
14 January: Shudiaki, Paktia
24 January: Hazar Qadam, Uruzgan
4 February: Zhawar, Paktia
March: various incidents associated with Operation Anaconda

Iraq, 19 March-1 May 2003 (36 incidents)

23 March: Al-Rutbah
27-28 March: Najaf
21 March: Basra, missile attack
22-23 March: Khormal, Kurdistan
23-24 March: Nasiriyah
24 March: Al-Azamiyah neighborhood, Baghdad
26 March: Al-Shaab neighborhood, marketplace, Baghdad
27 March: Najaf bombing
28 March: Al Nasser marketplace, Baghdad
28 March: Diala Bridge, Baghdad
29 March: Al-Janabiin suburb, Baghdad

30 March: Jisser Diala village, near Baghdad
31 March: Al Amin area, Baghdad
31 March: Karbala, tank attack on civilian vehicle
31 March - 1 April: Al Hillah, multiple incidents
2 April: Al Mansour district, Baghdad
2 April: Red Crescent maternity hospital, Baghdad
2 April: Najaf bombing
2-3 April: Aziziyah and Taniya bombings
3 April: Furat, near Baghdad, missile strike
4 April: Baghdad, military checkpoint shooting
4 April: Manaria, Mohammedia district, south of Baghdad
5 April: Basra, bombing
6-8 April: Baghdad, multiple incidents involving ground fire
7 April: Al-Mansour neighbourhood, Baghdad
7 April: Diyala bridge, Baghdad, checkpoint shooting
8 April: Al Jazeera office, Baghdad, missile strike
8 April: Palestine Hotel, Baghdad
9 April: Fathila, Northern Iraq
9 April: Ghazaliya district, northern Baghdad, cluster bomb
10 April: Baghdad, ambulance shooting
10 April: Al-Adamiyah, Baghdad, ground attack
11 April: Ar-Ramadi, bombing
11 April: Nassiriya, checkpoint shooting
15 April: Mosul, shooting of demonstrators
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HUME: If you listened to the Pentagon briefings in the past week, watched ABC News in the past few weeks, or CNN to some extent as well, you'll know that civilian casualties has emerged, at least in those

venues, as a major story line of this war. And the question I have is, civilian casualties are historically, by definition, a part of war, really. Should they be as big news as they've been -- Mara?

LIASSON: No. Look, war is about killing people. Civilian casualties are unavoidable. Now, I think there's this notion that we have precision weapons and we can actually choose who we want to kill. I don't think that's correct. I do think what's been missing, in a television war where the opposition, your enemy can take reporters to show them purported civilian casualty areas, has been a message from the U.S. government that says we are trying to minimize them, but the Taliban isn't, and is putting their tanks in mosques, and themselves among women and children.

HUME: Well, we first heard that from the Pentagon. It was Rumsfeld who came out and said that.

LIASSON: Yes, but I don't think that's been repeated over and over again in a way that would counter the Taliban message.

KONDRACKE: Well, the Pentagon puts out these pictures which show us hitting a tank or hitting a truck. And one gets the impression that every shot is a perfect shot, which it clearly cannot be. You know, some percentage of shots are going to miss. And it should be clear, but it's got to be emphasized repeatedly, that the United States is not trying to kill civilians. I mean, if we were, we would carpet bomb Kandahar, which we are not going to do. But it's hard to know whether *ABC* and *CNN* broadcast this because they are offended that we are causing the civilian casualties, or because they're trying to show us what Al-Jazeera is likely to be showing in Pakistan and elsewhere. If that's the case, then American people should know, at least, that there are civilian casualties that are being exploited.

BARONE: Well, Mort, I think people do understand that these things don't hit target 100 percent of the time. A population that's got cell phones and laptop computers knows that machines don't always work, even though they're pretty miraculous when they do. I think the real problem here is that this is poor news judgment on the part of some of these news organizations. Civilian casualties are not, as Mara says, news. The fact is that they accompany wars. What's newsworthy here is that the United States taxpayer and the United States military has spent billions of dollars to develop these precision weapons, which most of the time hit a very precisely defined military target. They get much more bang for the buck and much more bang for each (UNINTELLIGIBLE). And we very seldom do it. So I think a lot of these stories are holding us to a standard. And the tone and the structure of the story almost suggests that the United States is committing some kind of a war crime when there is a civilian damage or a collateral damage on the side. I think that's a very wrong judgment of what the rules of war are about. And I think this is very poor news judgment, because civilian casualties are really not news.

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> For example, subordinate commanders of one division allegedly had to meet body count quotas, which calls into question whether that division's operations were designed to maximally contribute to war aims, or if were they instead designed to maximize kills at the neglect of more important long-term goals. Compounding this problem, some assert that many officer evaluations and promotions depended on the body count. Perhaps as a result of these pressures and incentives, some officers subordinated integrity to ambition or expedience by inflating their unit's counts.

Murray concludes that, although the body count allowed some useful analysis:

> The Army's selection of the body count as its primary metric may not only have contributed to losing the war, but in the end it proved so morally corrosive that it led to a crisis of soul-searching in the postwar officer corps.

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Generally speaking, the good will felt toward Americans by many Iraqis in the immediate aftermath of Hussein's fall had abated by autumn 2003. According to the Zogby International poll of Iraqis only 15 percent of respondents saw the coalition as liberators in August 2003 -- down from 43 percent in May 2003. (Another 10 percent saw them as peacekeepers). An October/November 2003 poll by the Oxford Research Institute (ORI) found that 79 percent of respondents had no confidence in US-led forces. However, what concerned Iraqis the most, according to the ORI poll, was the prospect of chaos and civil war engulfing their country. Two-thirds cited public security as their top priority. This may help explain their willingness to tolerate the coalition presence.

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